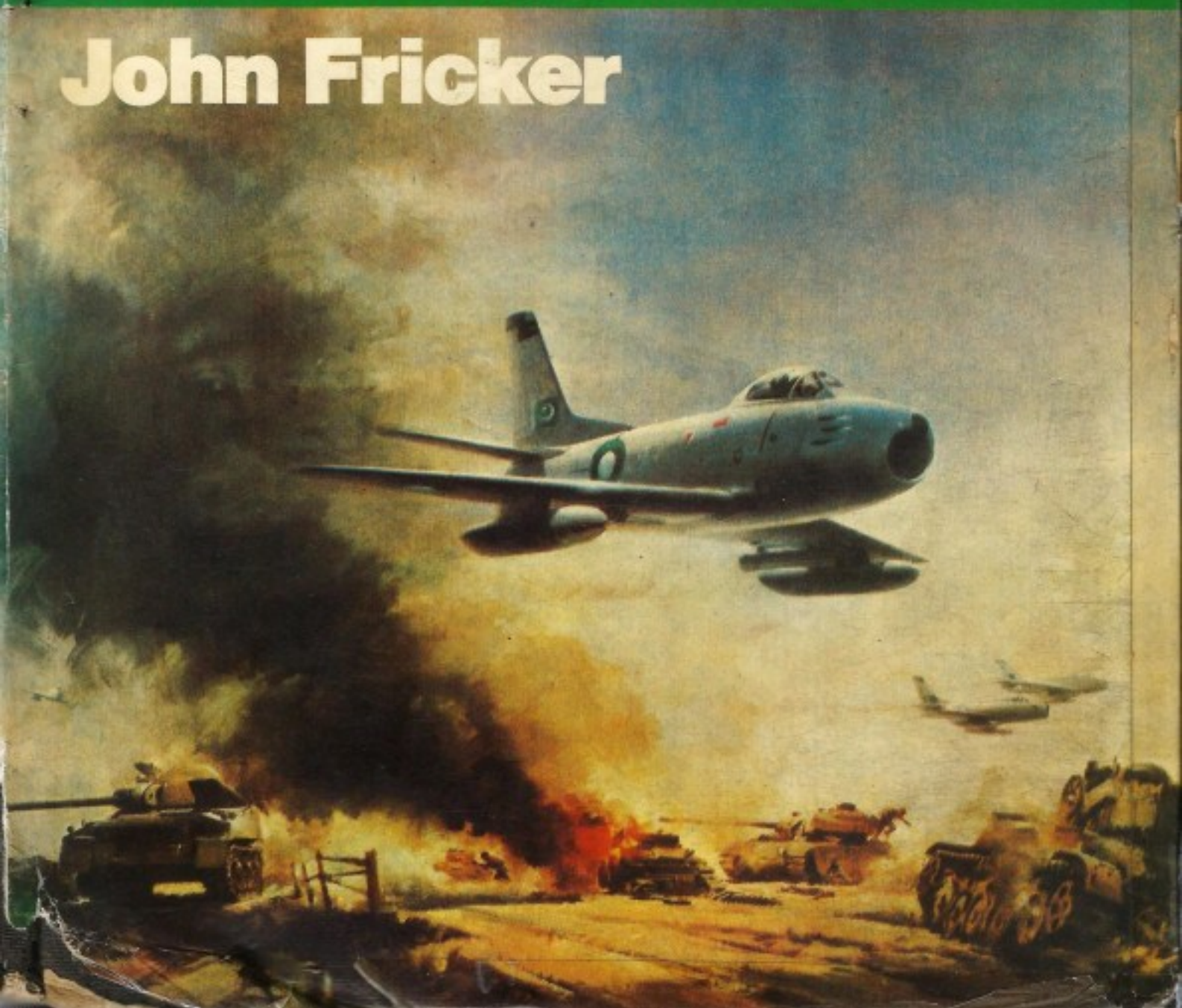


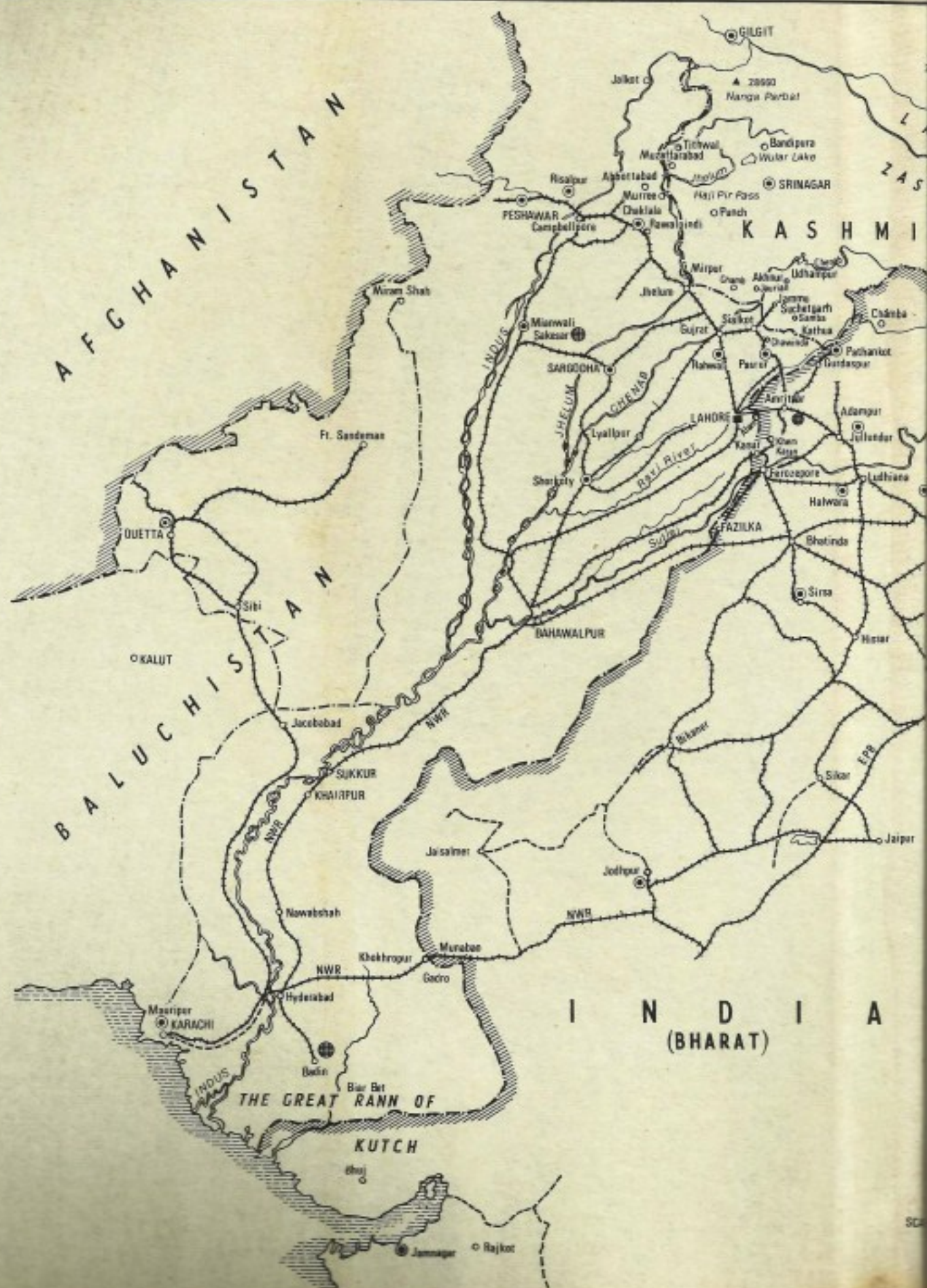
Battle for Pakistan



The Air War of 1965

John Fricker





WEST PAKISTAN



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 RADAR SITES
 INTERNATIONAL BOUNDARY
 RAILWAYS
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EAST PAKISTAN

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with best wishes from Rizwan J. A.

Battle for Pakistan

The Air War of 1965

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Battle for Pakistan

The Air War of 1965

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The PAF offensive against Indian air bases included assaults by 60 para-commandos each on Adampur, Helwara and Pathankot, dropped at night from three Lockheed C-130Bs of No 6 Squadron.

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As the mainstay of the PAF in the 1965 war, the F-86F Sabre was theoretically out-performed by the very much more powerful Hunter. However, the Sabre proved to have superior low-speed manoeuvre capability at low altitudes.



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Air Marshal Malik Nur Khan



As one of the most outstanding military commanders since World War II, Air Marshal Malik Nur Khan has had the unusual distinction of interspersing highly successful careers in both service and civil fields. Following family tradition — his father fought as a much-decorated Indian Army cavalryman in World War I — Nur Khan entered the Royal Indian Military College at Dehra Dun in the mid-1930s at the age of 11, with the expectation of qualifying for Sandhurst or its equivalent in India. Before he was 17, however, his enthusiasm for aviation resulted in him starting to learn to fly at his family's expense during vacations at the Lahore Flying Club, and he achieved his pilot's A-licence on Tiger Moth biplanes as soon as he reached his 17th birthday. Significantly, he disappeared during his first solo to fly over his family house at Lahore, which resulted in him being briefly grounded by his anguished instructor, and his reputation for devilry in the air accompanied him throughout his eventful flying career.

The youthful pilot's plans to graduate to the RAF College Cranwell for a service flying career were thwarted by the outbreak of World War II, but his persistence resulted in him being accepted by the Indian Air Force for aircrew training some weeks before his 18th birthday — then the official age limit — in January 1941. After initial ground training at Lahore, Nur Khan began flying with RAF instructors on Indian Air Force Tiger Moths at Hyderabad (Begumbet), moving on to Ambala to complete his wings course before the end of 1941 on the more powerful Hawker Hart and Audax biplanes. He was the only student on his course to achieve 'above average' assessments from the RAF in armament, gunnery and bombing.

Among the student pilots on the same course as Nur Khan was a former IAF navigator, P. C. Lal, who became involved in an escapade, while flying in the back seat of an Audax, when the trainee from Ambala attempted to fly beneath some telephone wires crossing a

ravine during some unauthorised low flying. Somehow, the sturdy Audax staggered back to base trailing bunches of wire from the top wing, but although Lal jumped out of the rear cockpit and pulled them off after Nur Khan had landed on the far side of the airfield, they had cut into the mainspar causing damage which could not be concealed. Nur Khan received a red endorsement in his logbook and was re-coursed, but P. C. Lal went on to become his squadron commander at a later stage, and held a senior staff post with the Indian Air Force during the 1965 war with Pakistan. He subsequently became C-in-C of the IAF in 1970.

Nur Khan's first operational posting was to No 3 Squadron of the original IAF at Peshawar, still flying Audaxes and Harts, against the perennial Fakir of Ipi and his dissident tribesmen in the North-West Frontier Region. Once again, he achieved the highest armament scores of all the squadron's pilots, and repeated this success in 1942 when converting to Vultee Vengeance dive-bombers at Peshawar, after an instructor's course on Harvards at Ambala. Nur Khan spent about six months bombing bridges used by the Japanese in Burma, operating from Assam with the Vengeance, which he recalls as 'a terrible aircraft', before returning to Peshawar to convert to Hurricane fighters.

After flying Hurricanes operationally against the Japanese in Burma in 1944, he was posted to Bangalore, in southern India, for a Spitfire course as a preliminary to joining the only Indian Air Force squadron earmarked to join the occupation forces in Japan. When he did get to Japan, however, in 1945, it was to fill a staff job as Squadron Leader Operations at Air HQ in Iwakuni.

On his return to Delhi in August 1947 he found India in the throes of partition, and he joined the exodus of the Muslim population via a hazardous train journey, through murderous religious riots, to Lahore. He transferred to the Royal Pakistan Air Force on its formation, becoming station commander at Chaklala,

before being posted to London in 1948 as his new country's first Air Adviser. In this capacity, he was responsible for evaluating the suitability of new British equipment for Pakistan's emergent air force, and recommended selection of the Hawker Fury piston-engined fighter to re-equip the PAF's combat squadrons, and the sturdy Bristol Freighter, in preference to the Vickers Valetta, as a Douglas C-47 transport replacement.

Further staff jobs followed his return to Pakistan, including commandant of the PAF Academy at Risalpur, and at Air HQ where as a group captain he eventually became Assistant Chief of Air Staff (Operations). In this capacity, he was involved in plans for the Americanisation of the PAF, which at that time still had an RAF C-in-C. He was instrumental in overcoming his British chief's preference for the Republic F-84 Thunderjet strike-fighter offered by the US by demanding, against the threat of his resignation, the higher-performance and more versatile North American F-86F Sabre. This was to have far reaching effects in the 1965 war.

In the mid-1950s, Nur Khan also completed a course at the RAF Staff College, Andover, where one of his fellow-students was Ezer Weizman, later to become an outstanding C-in-C of the Israeli Air Force, at the time of the 1967 war in the Middle East, and more recently Defence Minister. In his autobiography *On Eagles' Wings* Ezer Weizman said of Nur Khan: 'He was a formidable fellow, and I was glad that he was Pakistani and not Egyptian.'

As station commander at Mauripur, Nur Khan had the responsibility of supervising the PAF's conversion to Sabres, the first high-performance jet fighter to arrive in Pakistan, and under his usual dashing leadership, his squadrons soon demonstrated their confidence and skill with their new equipment by performing the first 16-aircraft loop in tight formation.

When Air Marshal Asghar Khan became the PAF's first Pakistani C-in-C in 1957 Nur Khan was responsible for the organisation of the new Operations Group, of which he then took command, at its Peshawar HQ, and remained there until seconded by the Pakistan Government as managing director of the national airline, PIA, in 1959. His success in establishing PIA on a firm and profitable financial basis in the ensuing six years is now a fact of airline history, and is all the more remarkable in view of his hitherto exclusively military background.

Characteristically, following notification of his pending transfer back to the PAF as Commander-in-Chief early in 1965, Nur Khan arranged to take a conversion course on Pakistan's most advanced jet fighters, and despite not having flown for about six years, had a quick check-out at Sargodha, on the Lockheed T-33, before converting to the Mach 2 Lockheed F-104A Starfighter via the two-seat F-104B. He also flew a Sabre and soon got his hand back in to such effect that he achieved the near-impossible feat of scoring 100 per cent in air-to-ground gunnery. This was the first time this had been done in the PAF, but to show that it was no fluke, the C-in-C repeated this feat at a later date in both marks of Sabre then used by the PAF. He subsequently achieved the same quite

remarkable achievement in the MiG-19 when the first of these massive twin-jet fighters arrived from China.

This was leading from the cockpit with a vengeance, but in setting new standards for his pilots to emulate, Nur Khan, who was appointed Air Marshal during the 1965 war with India, established the foundations of aggressive tactics, and raised morale of the PAF accordingly. This substantial achievement was not without its risk, however. Maintaining his tradition of flying every combat type in PAF service, the C-in-C later pulled too hard in a high-altitude turn during his first flight in the delta-wing Mirage, and found himself in a spin — not the best of manoeuvres in a tailless aircraft. Despite repeated urgings from Wg Cdr Alam, who was flying chase, for him to eject, Nur Khan succeeded in recovering control about 5-6,000ft from the ground, thereby saving the PAF an expensive loss. On another air-to-ground sortie, his habit of diving as close as possible to the target for maximum accuracy resulted in him picking up a ricocheting rocket splinter which damaged an engine in the (fortunately) twin-jet MiG-19 which he was flying at the time.

Nur Khan's key part in the 1965 operations emerges in the narrative which follows, and there seems little doubt that without his leadership, Pakistan may well have failed to survive. The PAF was the only arm of the Pakistan defence forces which was prepared for imminent war at that time, and in the prevailing political paralysis which gripped the government and cabinet of Field Marshal Ayub Khan at the beginning of September, Nur Khan made effective use of the completely free hand he had been given to prevent an Indian breakthrough.

His conduct of the air war was all the more remarkable in view of the fact that he had taken over command of the PAF, after a long absence from military aviation, on 23 July 1965, only a few weeks before the outbreak of hostilities on 1 September. Immediately after the war, he instituted a series of major reorganisational moves to rectify some of the deficiencies which had become apparent, together with a massive re-equipment programme for new combat aircraft from France and China, to overcome the arms veto imposed by the US on both sides in the 1965 conflict.

This resulted in his being instrumental in obtaining 90 Orenda-engined ex-Luftwaffe Sabres via Iran, in addition to 75 MiG-19SF or F-6 fighter-bombers from China, in 1966, and arranging the purchase of an initial batch of 35 high-performance Mirage IIIs and 5s from France. Not content with virtually trebling the strength of the PAF to around 280 combat aircraft, Nur Khan also set out to rectify the proven deficiencies in airfields and radar installations by initiating the construction of six new major bases, at Mianwali, Murid, Hafizabad, Jacobabad, Badin and Shorkot (Rafiqui), and equipping a substantial number of new early-warning sites.

Nur Khan consolidated this reorganisation before his retirement as C-in-C of the PAF in 1969. He then held senior administrative posts in the government for a short time, including Deputy Martial Law Administrator and then Governor of West Pakistan, under President Yahya Khan, before resigning through political disagreements. Although opposed to the views of Yahya Khan, Nur Khan has always avoided political appointments, and it was on this basis that he eventually

yielded to repeated requests from the Pakistani Government to resume control of Pakistan International Airlines in November 1973. His success in not only keeping PIA out of Pakistan's turbulent political arena, but also returning it to a sound commercial basis, is indicated by the remarkable growth achieved during the five years of his recent control. In a period of general airline recession, he increased PIA's revenue passenger/km by a factor of three; its freight tonne/km by a factor of 7.5; and capacity in seat/km by 2.5. When Nur Khan took over PIA again in 1973, its operating

surplus for 73/74 was only Rs0.18 million. The 1978 figure is somewhere round the Rs262 million mark — or about \$26 million.

'Fortune favours the brave' could well be the Khan family motto. Having survived innumerable flying hazards unscathed, Nur Khan had his closest brush with death towards the end of 1977 when, in characteristic fashion, he attempted, single-handedly, to overpower an armed hijacker who was holding a PIA F.27 Friendship, its crew and passengers as hostages on the ground at Karachi Airport. After reasoning with the hijacker for several hours, Nur Khan attempted to snatch his gun in the close confines of the F.27's cabin. In the ensuing struggle, he was shot in the side at point-blank range by the gunman, the bullet lodging a centimetre or so from his spine. By that time, however he was on top of the hijacker, who was then overpowered by the crew of the F.27. Happily, Nur Khan recovered rapidly from his dangerous wound, and had the distinction of adding the Hilal-e Shujat — Pakistan's highest civil award — to the Hilal-e Jurat, or Distinguished Service Order, which had been awarded after the 1965 war. Air Marshal Nur Khan is the only Pakistani citizen to have been awarded both these decorations.

John Fricker, seen here at PAF Air HQ, Peshawar, with Air Marshal Nur Khan.



Introduction

My long acquaintance with the Pakistan air force began as far back as 1958 when, as military editor of *The Aeroplane*, I was invited to undertake an extensive tour of PAF HQ and bases. This invitation had been extended by the recently appointed C-in-C, then Air Vice Marshal Asghar Khan, as the first Pakistani incumbent of this command, who was anxious to show the Western world the prowess of his air force, newly equipped with US rather than its original British combat aircraft.

That his confidence was not misplaced was evident right from the start, when at a major display at Mauripur, his Sabre squadrons performed the world's first 16-aircraft loop in tight formation, and went on to complete a series of low-level attacks with live rockets and machine-gun ammunition against targets in the middle of the airfield, immediately in front of a VIP enclosure in which the guest of honour was the King of Afghanistan.

The memorable 10-day tour which followed, in a lumbering but VIP-furnished Bristol Freighter, concentrated mainly on the still-turbulent North-West Frontier region, including the subsequently abandoned historic ex-RAF airfields at Kohat and Miranshah. For me, one of the many highlights of the tour was an airborne view of the barren walls of the Khyber Pass, which had once echoed and re-echoed with the snarl of Rolls-Royce Falcon, Eagle and Kestrel aero-engines, and now reverberated to the rumble of the Centaurus in our second-generation Hawker Fury T61 trainer.

Even more spectacular, however, was the classic Valley Flight along the Indus towards its source in the Karakoram Mountains, at the western end of the Himalayan chain, to Gilgit, in North Kashmir. The normal operating ceiling of about 11,000ft of our venerable 130-knot Bristol Freighter meant that we had to thread our way along tortuous valleys between mountain walls towering far above us, and culminating in the awesome peaks of Nanga Parbat and Rakapushi, at

26,660ft and 25,550ft respectively. As I wrote at the time: 'A few snow-clad and pine-covered mountains swept past our wing-tips as we settled down on the two-hour trip, but soon the summits towered above us, and the tapering walls of rock stretched on each side ahead, behind and below. Sometimes the mountains moved in until they seemed close enough to touch, and the sparkling snow-covered branches of the pines looked like Christmas trees in an adjacent window. On occasions the valley widened sufficiently for a sandy floor to be seen far below, with the brown threads of the Indus winding to their source. After a while, snow-covered peaks surrounded our insignificant little aircraft on all sides, and in the clear cold air, they could be seen extending in range after range in serried majesty.'

Air supply is the sole link between the mountain villages of North Kashmir and Peshawar in the winter, when not stopped by cloud, but the calibre of the PAF transport pilots is indicated by the fact that when threatened some years ago by Indian fighters, they continued the Valley Flights for the best part of 12 months at night.

From this initial visit, it was apparent that as a race, the Pakistanis — and especially those from the hill tribes — seem to have a natural affinity for the air, with which they are temperamentally in accord. This was confirmed by the progress of the 22-day war with India in 1965, which led to my next visit to the PAF in 1968. Once again, this was at the invitation of the C-in-C, who by then, almost exactly 10 years after my first contact with the PAF, was Air Marshal Nur Khan.

My brief on this occasion was to compile a detailed account of the PAF's part in the 1965 air war with India for historical purposes, from all available sources and with full official cooperation. Once again, I was flown around the bases in sundry PAF trainers and support aircraft, including Cessna T-37s, North American T-6s, a Beech Travel Air, and various helicopters, spending most

of my time, of course, at Sargodha, which I had last seen being built in 1958, to make tape-recordings of the recollections of those pilots who had been at the forefront of the 1965 battles.

To gain a pilot's eye view of these, I flew in a two-seat MiG-15UTI jet trainer from the PAF's new generation of Chinese combat aircraft from Sargodha — a far cry from the piston-engined Fury a decade earlier. Returning to Pakistan a few months later, early in 1969, to complete the task, I also repeated my earlier Valley Flight, this time high above most of the Karakorams, in one of PAF's

Lockheed C-130B Hercules from the transport wing at Chaklala. I was given full access to all the official records relating to the 1965 war, with the results now presented here for a wider readership.

In early 1972, I made yet another visit to Pakistan, for a review of the operations by the PAF in the 1971 war with India, but that is another story.

John Fricker and Air Marshal Nur Khan.



1. Thirty Seconds Over Sargodha

Wg Cdr (now Group Captain) Mohammed Mahmood Alam of the Pakistan Air Force is a scrap of a man who appears almost lost in the none-too-roomy cockpit of a Sabre. Yet during the 1965 conflict with India, this Pakistani squadron commander established a combat record which has few equals in the history of jet air warfare.

Many pilots have scored several air victories in one sortie, and have equalled or exceeded Alam's claims of shooting down up to five enemy aircraft of superior performance within a few minutes. But few are likely to be able to match his record of destroying at least three opponents — Hawker Hunters of the Indian Air Force — within the space of somewhere around 30 seconds.

Admittedly, confirmation of Alam's claims has been difficult to obtain, despite close-range observation of this encounter by several PAF pilots, and some gun camera evidence. Nearest of these observers was his wingman, Flg Off Masood Akhtar, who, protecting his leader's tail, clung like a leech throughout the action. Another section of PAF Sabres, led by Flt Lt Bhatti, was attempting to engage the Hunters but Alam (at that time a squadron leader) got there first. Flying top cover in an F-104A Starfighter was Sqn Ldr Arif Iqbal who, with intense frustration, watched the brief combat with admiration.

On this basis, Alam was originally credited with five IAF Hunters destroyed, although the wreckage of only two could be found in Pakistani territory, within two or three miles of Sangla Hill railway station. The bodies of the pilots — one Hindu and one Sikh — were reportedly burnt beyond recognition. The area of the main engagement, however, some 30 miles east of Sargodha airfield, was only about 55nm inside the Pakistan border — some seven or eight minutes at jet speeds. Only the Indian Government is in a position to know its actual losses on the second day of its war with Pakistan, but the evident superiority achieved at that time by the PAF in its

initial combats was a powerful factor in heightening both morale and fighting efficiency in a force which was heavily outnumbered by its opposition.

When, at the end of August 1965, the dispute between Pakistan and India over Kashmir threatened to explode into full-scale hostilities, the PAF, equipped with American aircraft supplied through the Mutual Aid Program, was confronted by a well-trained adversary operating large numbers of mainly British combat aircraft. The PAF order of battle comprised 92 F-86F Sabres in service, plus eight undergoing repair and overhaul at maintenance units; 12 Lockheed F-104 Starfighters, of which two were unarmed F-104B two-seat trainers; 25 Martin B-57 jet bombers, including several fitted out for reconnaissance tasks; and 12 Lockheed T-33 jet trainers adapted for ground attack and tactical reconnaissance. These 141 combat aircraft were deployed in nine squadrons at only three widely-scattered operational airfields in West Pakistan, and were supported by about 30 assorted trainers, transports and helicopters.

Corresponding IAF strength at the time was estimated to be at least 775 aircraft in 29 squadrons in the course of building up to a planned combat strength of some 45 squadrons. More than 500 of the IAF aircraft were first-line jet types, disposed in 27 fighter and three bomber squadrons, each with 16 aircraft on establishment. They included the first 10 Mach 2 MiG-21s, 118 British-supplied Hunter 56s, 80 Indian-built Gnats, 80 Dassault Mystères, 56 Dassault Ouragans, 132 obsolescent Vampires, 53 Canberra B(I) 58 bombers, and seven Canberra PR 57 reconnaissance aircraft.

Thus, in combat aircraft, the PAF was outnumbered by nearly four to one, and if the IAF support element of 191 transport aircraft and 48 helicopters was included against the corresponding total for Pakistan, the ratio became closer to five to one. Even then, the comparison was between the numbers of aircraft estimated to be in



Above: Then a squadron leader, Mohammed Alam emerged from the 1965 war with India as Pakistan's top-scoring fighter ace, with claims for up to nine IAF fighters destroyed, plus two damaged. His F-86F-35-NA is fitted with slats to improve low-speed handling and gave this version of the Sabre unrivalled manoeuvrability. Note the smoke-blackened gun ports, indicative of recent combat.

Right: Sqn Ldr Mohammed Alam is dwarfed by his favourite Sabre, an F-86F-35-NA, in between operations in 1965.



actual service with the IAF, against the overall totals in the PAF inventory.

For example, although India received its first six MiG-21s from the Soviet Union as early as February 1963, followed by a further six by the end of 1964 and another 18 in 1965, only 10 of the initial 12 were estimated by the PAF to be operational at Chandigarh by the end of August 1965. But this Mach 2 force exactly matched Pakistan's total of 10 F-104As at Sargodha.

Similarly, the PAF's 100 F-86F Sabres were balanced against the 118 Hunters operated by the IAF, although there were some doubts in Pakistan that the older North American fighter would be able to cope effectively with the more powerful and more heavily armed combat aircraft of British origin. Most of the PAF Sabres had been modified to F-86F-40-NA standards, although there were still a few F-86F-35s in Pakistani service. Main difference between the two versions was that the -35 Sabre had the so-called 'hard' wing, without leading-edge slats, whereas the -40 had both slats and wing-tip extensions for improved manoeuvrability and high-altitude performance. There were also minor differences in such details as the elevator actuator and rear fuselage sections. The uprating of the Sabres to the latter standard was to prove a significant factor in future combat with the formidable Hunter.

Against this preponderance of Indian air power, the PAF could offer only a high standard of leadership throughout all its echelons, a determination springing from the realisation that nothing less than national survival was at stake, and a sound background of training and experience. From the technical point of view, the PAF had perhaps only one trump card to play against the IAF: the Sidewinder infra-red homing air-to-air missile. Less than 25% of the Sabre force — in fact only 22 aircraft — was equipped to carry Sidewinders, but in the heat of combat, the IAF would have to assume that every F-86F it encountered was so equipped.

One of the main effects of the Sidewinder so far as the PAF was concerned was its ability to remedy in part the deficiencies in speed and climb which the Sabre suffered by comparison with the Hunter. With their superior performance, the IAF Hunters could normally expect to disengage from combat at will, but the two-mile reach of the Sidewinder tended to minimise the profitability of this manoeuvre. If the Hunters stayed they had to fight on the F-86F's terms and thus permit the Sabres to make use of their unrivalled low-speed manoeuvrability.

This, then, was the situation on 7 September 1965 — the second day of the Indo-Pakistan war — when 32-year old Mohammed Alam was commanding No 11 Squadron, flying a dozen or so Sabres from the main PAF operational base of Sargodha, in the Punjab. With virtually all of its fighter strength concentrated on this one first-line airfield, the PAF was fully alert to the dangers of IAF air attack — especially as it was the Pakistani pilots who had opened the airfield offensive at dusk on the previous day with strikes against the opposing Indian air bases.

Night brought the Canberra bombers from both sides in harassing attacks against each other's airfields. From its own successes on the previous day, however, the PAF was under no illusions that the main danger was from

fighter strikes in daylight. This was why the half-light before dawn on the morning of 7 September found Sqn Ldr Alam and some of his pilots already strapped in the cockpits of their Sabres, at readiness at the end of the runway, waiting for the signal to scramble as soon as warning of approaching IAF aircraft was received through the Pakistani radar and observer network.

With low-flying jets, however, any warning at all is a luxury at a front-line airfield. Although Sargodha already had its initial protective fighter patrol airborne, the first intimation of the arrival of the IAF was the sight of six Mystère IVA fighter-bombers pulling up out of the sunrise from their tree-top approach to deliver their attack at about 05.30hrs. Their navigation was good, and the great airbase — packed with aircraft, fuel bowlers and other rewarding targets — lay sprawled beneath them. While many of the PAF fighters were spread around in camouflaged dispersals, others were lined up, through military necessity, on the Operational Readiness Platform (ORP) at the end of the runway. Sargodha was well defended with light ack-ack, but it had only three fighters airborne and the Mystères, enjoying virtually complete surprise, had the Pakistani base at their mercy.

Strapped helplessly in their aircraft on the ground, the PAF Sabre and Starfighter pilots watched the Mystères pull up to about 1,000-1,500ft, still maintaining tight and unwieldy echelon formation, and spray the empty tarmac area at random with their weapons. First they fired their underwing rockets, although several simply jettisoned the pods with the rockets still in them. Some of these battered pods are still on display at the PAF Museum at Peshawar. Then they opened up with their twin 30mm cannon, but virtually without taking aim during their single high-speed pass. They exited towards the south-west leaving Sargodha unscathed. They themselves, however, were less fortunate. One was shot down as it flashed past by the anti-aircraft defences, while a further two fell to the 20mm Vulcan cannon of the patrolling Starfighter.

Immediately after this first IAF daylight attack, Sqn Ldr Alam and his No 2, Flg Off Masood Akhtar, were scrambled with two other F-86s and an F-104 for an airfield patrol at about 15,000ft. Within about five minutes they were directed by ground control towards an incoming Indian raid, but after flying eastwards for 10-15 miles, they were told to turn back because IAF fighters were overhead Sargodha. This was then about 06.10hrs. Flying top cover for the F-86s in the F-104, Sqn Ldr Arif Iqbal did not get a chance to join the combat, although he watched it from beginning to end. He recalls:

'I was orbiting base at about 15,000ft when I saw four Hunters right over the runway, heading south-west. I don't know whether they had already delivered their attack but I called "contact". Flt Lt Bhatti was orbiting about 10 miles or so south-west of base, and Alam was about five miles further south. I dived towards the IAF aircraft maintaining visual contact, by which time they had passed through Bhatti's and Alam's sections, who also established contact. Bhatti had to break off because of a fuel tank hang-up, but Sqn Ldr Alam and his wing man continued chasing the Hunters. These were flying at about 480 knots, still with their drop tanks on.



'The first I saw of the actual combat from my position behind the Sabres was when a ball of flame went into the ground. This, I realised, must have been a fifth Hunter. After Alam had then shot down the first of two Hunters on the right, a break was given by the Indians. I heard some of their conversation on the RT, although we were on UHF and they were on VHF — I believe it's a matter of harmonic frequencies — and I heard one of them say, "Lead, No 3 has been shot down." Sqn Ldr Alam was then a bit excited as he had his mike button pressed, and he was telling his wing man to stay clear but to stick with him. Even after that, the IAF aircraft made no effort to jettison their tanks, which would have enabled them to have accelerated away from the Sabres, or to execute a break. When they did start to turn, Sqn Ldr Alam had already shot down his third aircraft, and he almost overtook the remaining pair. His fourth victim was attacked from what looked like a range of not more than about 800ft or so, and the last one was probably even closer.'

Alam's account of the action is more graphic:

'As we were vectored back towards Sargodha, Akhtar called, "Contact — four Hunters", and I saw the IAF aircraft diving to attack our airfield. So I jettisoned my drops [most jet fighters carry additional fuel in external underwing tanks which can be quickly released before going into action] to dive through our own ack-ack after them. But in the meantime I saw two more Hunters about 1,000ft to my rear, so I forgot the four in front and pulled up to go after the pair behind. The Hunters broke off their attempted attack on Sargodha, and the rear pair turned into me. I was flying much faster than they were at this stage — I must have been doing about 500 knots — so I pulled up to avoid overshooting them and then reversed to close in as they flew back towards India.

'I took the last man and dived behind him, getting very low in the process. The Hunter can out-run the Sabre — it's only about 50 knots faster, but has a much better acceleration, so it can pull away very rapidly. Since I was diving, I was going still faster, and as he was out of gun range, I fired the first of my two GAR-8 Sidewinder air-to-air missiles at him. [The Sidewinder homes on the heat radiations from the target aircraft's jet engine but is sometimes affected by ground returns if fired in a dive at low altitudes.] In this case, we were too low and I saw the missile hit the ground short of its target.

'This area east of Sargodha, however, has lots of high-tension wires, some of them as high as 100-150ft, and when I saw the two Hunters pull up to avoid one of these cables, I fired my second Sidewinder. The missile streaked ahead of me, but I didn't see it strike. The next thing I remember was that I was overshooting one of the Hunters and when I looked behind, the cockpit canopy was missing and there was no pilot in the aircraft. He had obviously pulled up and ejected and then I saw him coming down by parachute. This pilot [Sqn Ldr Onkar Nath Kakar, commander of an IAF Hunter squadron] was later taken prisoner.

'I had lost sight of the other five Hunters, but I pressed on thinking maybe they would slow down. [There were, of course, still only two Sabres pitted against the remaining five IAF aircraft.] I had lots of fuel so I was prepared to fly 50-60 miles to catch up with them. We had just crossed the Chenab river when my wing man called out, "Contact — Hunters 1 o'clock," and I picked them up at the same time — five Hunters in absolutely immaculate battle formation. They were flying at about 100-200ft, at around 480 knots and when I was in gunfire range they saw me. They all broke in one direction, climbing and turning steeply to the left, which put them in loose line astern. This, of course, was their big mistake. If



Above: The versatility of the North American Sabre as a potent fighter-bomber was enhanced still further by the addition of two GAR-8 Sidewinder air-to-air missiles on pylon racks beneath the centre-section. Only 22 of the PAF's 100 or so F-86Fs had been modified to launch Sidewinders during the 1965 war, but these missiles were credited with the destruction of at least eight Indian aircraft.

Right: One of Sqd Ldr Alam's IAF Hunter victims plunges earthwards in flames after the wing tanks had been ruptured by a brief burst of 0.5in Browning machine-gun fire.



you are bounced, which means a close range approach by an enemy fighter to within less than about 3,000ft, the drill is to call a break. This is a panic manoeuvre to the limits of the aircraft's performance, which splits the formation and both gets you out of the way of an attack and frees you to position yourself behind your opponent. But in the absence of one of the IAF sections initiating a break in the other direction to sandwich our attack, they all simply stayed in front of us.

'It all happened very fast. We were all turning very tightly — in excess of 5g or just about on the limits of the Sabre's very accurate A-4 radar ranging gunsight. And I think before we had completed more than about 270 degrees of the turn, at around 12 degrees per second, all four Hunters had been shot down. In each case, I got the pipper of my sight around the canopy of the Hunter for virtually a full deflection shot. Almost all our shooting throughout the war was at very high angles off — seldom less than about 30 degrees. Unlike some of the Korean combat films I had seen, nobody in our war was shot down flying straight and level.'



Left: Sqn Ldr M. M. Alam, SJ and bar, with his wing-man, Flg Off Masud, after their memorable encounter with the IAF over Sargodha.

Right: Promoted to Wing Commander, Mohammed Alam was able to apply his unrivalled jet combat experience and tactical theories to the Mach 2 Mirage IIIEPs received by the PAF after the 1965 war.

Accurate shooting is difficult enough at the best of times from a jet fighter travelling not far off the speed of sound. The problems of flying with such precision while in a turn of such crushing force that every part of you weighs more than five times its normal amount may be imagined. And yet throughout the short 1965 war, in which he claimed nine enemy aircraft destroyed in only three encounters, Alam never had to fire more than twice at an opponent. He continues:

'I developed a technique of firing very short bursts — around a half-second or less. The first burst was almost a sighter, but with a fairly large bullet pattern from six machine-guns, it almost invariably punctured the fuel tanks so that they streamed kerosene. During the battle on 7 September, as we went round in the turn, I could just see, in the light of the rising sun, the plumes of fuel gushing from the tanks after my hits. Another half-second burst was then sufficient to set fire to the fuel, and, as the Hunter became a ball of flame, I would shift my aim forward to the next aircraft. The Sabre carries about 1,800 rounds of ammunition for its six 0.5in guns, which can therefore fire for about 15 seconds. In air combat, this is a lifetime. Every fourth or fifth round is an armour-piercing bullet, and the rest are HEI — high-explosive incendiary. I'm certain after this combat that I brought back more than half of my ammunition, although we didn't have time to waste counting rounds.

'My fifth victim of this sortie started spewing smoke and then rolled on to his back at about 1,000ft. I thought he was going to do a barrel roll, which at low altitude is a very dangerous manoeuvre for the opponent if the man in front knows what he's doing. I went almost on my back and then I realised I might not be able to stay with him so I took off bank and pushed the nose down. The next time I fired was at very close range — about 600ft or so — and his aircraft virtually blew up in front of me. None of these four pilots ejected, and all of them were killed.*

How could a formation of jet fighters flown by senior and experienced pilots (three were squadron leaders and the other three flight lieutenants) allow themselves to be shot down by aircraft of inferior performance which they outnumbered some three to one? Wg Cdr Alam comments:

'Hunter pilots won't believe it. I have flown Hunters myself in England, and they are very manoeuvrable aircraft, but I think the F-86 is better.

*Postwar Indian reports list two IAF Hunter pilots as missing over Pakistan on 7 September — Sqn Ldr S. B. Bhagwat and Flt Lt J. S. Bhat. In addition the names of at least a further five Hunter pilots, all but one of whom were killed, are listed as having been shot down in air combat on unknown dates.



'Actually, the Sabre has a fantastic turning performance. Although the normal stalling speed with flap is around 92 knots, you can fly it round in a steep turn down to as little as 80 knots or less in a descending scissors manoeuvre. Between 100 and 120 knots is quite a normal speed range to rack the Sabre round in combat. If you applied aileron at that speed in a Hunter you would flick out the other way. The F-86F is almost faultless on the controls, but it's a pity it doesn't have a bit more thrust. Provided that you see your opponent in time, you can never be out-turned or out-fought in a Sabre.

'I think, too, that the 0.5in Browning machine-gun is the best possible weapon against fighters for close combat. But if the Hunters hadn't all broken in the same direction, I could have been in trouble. As it was, they left themselves no initiative for turning the tables. The sixth and last Hunter disappeared from view, but we later heard that the pilot had ejected, he said because of engine trouble'.

Not everyone shares Wg Cdr Alam's views concerning the relative merits of the Sabre versus the Hunter. Even in the PAF, where many pilots have flown Hunters with the RAF, opinions are divided, but there is a strong element in favour of the British aircraft, which, after all, flew for the first time four years later than the Sabre. Wg Cdr Alam is prepared to defend his beloved Sabre with supporting technicalities, which he quotes with authority:



Above: Among the earliest equipment of the PAF when it came into existence in 1947 after Partition were one or two Douglas C-47 Dakotas, transferred from the former Royal Indian Air Force. These were used to start the Valley Flights to Pakistani outposts in Azad Kashmir.

Right: Eight refurbished ex-RAF Handley Page Halifax BV1s were acquired from the UK by the RPAF in 1949 to equip No 12 Squadron for bomber and transport operations. Six of these are seen here with Airtech Ltd, prior to delivery from Thame airfield, where they were overhauled. Some were fitted with special bomb bay attachments for transporting a complete Bristol Hercules powerplant.





'In a turn the Hunter slows down more quickly than the F-86 for the same application of g. For one thing, it has a much higher aspect ratio — the span of the wings in relation to their chord — and induced drag increases in inverse proportion to the square of the velocity. In other words, the lower the speed, the higher the induced drag.'

He readily acknowledges the far better thrust/weight ratio of the Hunter, which has 10,000lb of thrust from its Rolls-Royce Avon 203 engine for a clean aircraft weight of 19,000lb, compared with 6,000lb output from the General Electric J47 turbojet of the 15,000lb F-86F Sabre, without external stores. In his opinion, however, this is more than offset in combat by the higher induced drag of the Hunter. He continues:

'This means that the Hunter loses speed faster than the Sabre in a turn because of its bigger drag rise, which the extra thrust cannot counter. So in the turn I steadily closed up on the Hunters, which quickly decelerated from about 450 down to around 240 knots, and would have had to have pulled about 7g to get away from me. As it was they just slid back into my sights, one by one.'

In the final reckoning, could it be the man in the cockpit that counts more than the aircraft?

'Certainly flying skill matters a great deal. When I went to war I had about 1,400 hours on the F-86 which is a lot of experience and, with another pilot, I held the record for the highest gunnery scores in the PAF, with an average around 70 per cent. And I would definitely say this, that PAF air combat standards are as good as any in the world. Many of our pilots go on exchange postings to England and elsewhere, and come back proudly claiming that in air combat practice they have matched their skill with the best. I don't know whether by nature we Pakistanis are more aggressive, but we lay a lot of stress on aerobatics, gunnery, and air combat itself.'

These are some of the principal reasons for the establishment of air supremacy by the Pakistan Air Force, from almost the very beginning of hostilities, although something more than mere superiority in flying proficiency had to be present to offset the overwhelming numerical advantage held by the Indian forces. For an indication of this additional element, which was unquestionably the key to the entire Pakistani posture in the critical events of 1965, Wg Cdr Alam articulately expresses the national view point:

'We were fighting with a passion founded on faith. That concept of nationhood that you have in the West has perhaps not yet dawned upon us. We fought as Muslims against a people who were trying to destroy our way of life... We went through great anxieties, great fear often. But we knew one thing, that faith in one's destiny, faith in a cause — all this sustains a man, and faith sustained us.'

Here, then, was the main motivation of the Pakistani people, who do not hold their official status of an Islamic Republic in light regard. As the Wg Cdr Alam put it:

'We may not be first-rate Muslims, but this I know, that we have a faith in God extending through everyone in Pakistan, and a belief that He takes care of us. To feel that my life is in the hands of God, and that any risks that

I undertake are for a good purpose, leaves me nothing to fear. Before the war officially started three or four of us were briefed for a raid against the Indian airfield at Adampur, on which we were told by our intelligence that there were 48 aircraft. We didn't grumble, but we all knew it was going to be a one-way mission — and for some of us, like the late Sqn Ldr Rafiqui, it was. I called one of my pilots and wrote a short letter for him to give to my mother — I'm not married — if I didn't come back. But once I knew that it had to be done, it had to be done. When we came back we felt that there was a power greater than us taking care of these things.'

Wg Cdr Alam's faith was reinforced by several incidents during the 1965 war. On 4 September, for example, when leading a low-level recce mission against the IAF airfield at Jammu, and when passing the outskirts of the Indian town, the canopy of his Sabre was suddenly shattered by ground fire while he was skimming just above the trees at around 420 knots. He remembers:

'One moment I felt so secure and the next it was almost as if the world had come to an end. When the canopy goes, you get a lot of dust sucked up from the bottom of the cockpit, and this goes on for as long as 10 or 15 seconds. I was half-blinded, and the next thing that occurred to me was, God! Before the war has even started I'll be taken prisoner. I turned the shortest way towards Pakistan, but just then I saw smoke ahead from a regiment of Indian artillery — 16 guns firing towards Chhamb and holding up our crossing of the river. I couldn't speak to my wing man because of the noise of the slipstream through the cockpit, so I pulled up and made signs that I was going to attack. I made two passes and kept firing on the Indian artillery until my own guns jammed through overheating.

'I climbed up to about 1,000ft, and suddenly I lost all fear. It was a feeling of almost mystical experience, and I thought, "If I'm attacked by enemy aircraft while my guns are jammed, I'll simply ram my aircraft into my opponent." But I got back safely, and I never felt like that again throughout the war.

'After the combat with the six Hunters, my main feeling was of a sudden anti-climax. All that excitement... and then it all seemed too much. I certainly didn't feel the elation I expected from my avid reading of all the classic books on air combat from World War II when a junior officer. There was no passion in the killing itself; while I was shooting I was firing at an aeroplane rather than a man. We shot with cold-bloodness but not with the intent of killing a human being. In the wreckage of one of the Indian Hunters was found the pilot's wallet, and this man came from my home town — Calcutta. In the wallet were pictures of his wife and children and for a while I felt sad. I don't know if killing can ever be morally completely justified, but I killed in defence of my country and not as an individual. When I landed back at Sargodha, I was tremendously grateful to my God, that's one thing I remember...'

For Pakistan, this was the mood of the 1965 war. Fighting without hate, but with a fierce determination that took little account of the odds, based on a religious and unifying fervour.

2. Emergence of an Air Force

It is one of the many ironies of fate that the two air forces which confronted each other in the Punjab skies in 1965 sprang from a common origin in the Royal Indian Air Force from the days of the British Raj. Many of the senior air force officers in Pakistan and India in 1965, in fact, had undergone their flying training together under RAF supervision in the early days of the IAF, and several had served with distinction in the same squadrons during World War II. Their paths diverged, of course, with the partition of India in 1947. Then the Hindus, Sikhs and members of minority sects opted to serve with the Indian Union Air Force, while Muslim personnel joined the embryo forces of the newly created State of Pakistan. Regrettably, the political and religious antagonisms between India and Pakistan which erupted in the turmoil of partition, continued to smoulder on after the attainment of independence, until the climax of full-scale hostilities was reached in 1965.

Allocation of the former Royal Indian Air Force equipment and facilities in 1947 between the two new States was dependent on the Air Force sub-committee of the Armed Forces Reconstitution Committee. It was based mainly on the 80% predominance of Hindus and non-Muslim personnel in the RIAF, although geographical factors also came into consideration. On this basis, Pakistan could expect only 20% of the 10 existing RIAF squadrons and their British equipment, together with five bases and a mere 220 officers and 2,112 non-commissioned personnel. This was little enough for the new responsibilities confronting Pakistan. These included policing the 700 miles of the North West Frontier tribal belt, as well as guarding the 2,000-mile border with India and defending the eastern territories of the partitioned province of Bengal and the former Assam district of Sylhet, separated from West Pakistan by the 1,100-mile width of India.

Two fighter squadrons were clearly insufficient for Pakistan's new air force, and at the insistence of the

Armed Forces Reconstitution Sub-Committee, despite some opposition from the Indian representatives, approval was reached for the transfer of one of the two transport squadrons planned for the RIAF. Only one had actually been formed, with Douglas C-47 Dakotas, and this was retained by India. So when in August 1947 those officers and airmen who elected to serve with the Royal Indian Air Force moved to Agra, all Pakistan received was a nominal unit with one serviceable Dakota, and only three officers in addition to a couple of squadrons of Tempest II fighters. Even then, India sanctioned the transfer of the transport squadron only on the understanding that it would not be used in offensive action against the North-West Frontier tribes within the former borders of unpartitioned Indian territory.

At that stage, however, Indian apprehensions appear to have been somewhat premature. When the Royal Pakistan Air Force came into official existence on 14 August 1947 it had on strength only two pilots capable of flying transport aircraft, and three navigators, while its entire establishment of qualified flying personnel totalled a mere 44. And of the 2,300 or more personnel who had been transferred from the RIAF, few were qualified as tradesmen or technicians. As for equipment, most of the aircraft inherited by the RPAF were war-surplus types, although of adequate performance for that time, comprising 35 Hawker Tempest II fighters, one or two Douglas C-47 transports, 20 North American Harvard advanced trainers, 16 de Havilland Tiger Moth basic trainers and 10 assorted Austers for liaison and artillery spotting. There was a marked shortage of spares for these aircraft, and unserviceability and cannibalisation together soon resulted in a substantial reduction in the first-line strength of the RPAF.

Further supplies were received from the UK, however, and with the assistance of a seconded RAF Commander-in-Chief, Air Vice Marshal A. L. A. Perry Keene, plus 25 other British officers, the RPAF began operations with



two Tempest squadrons (Nos 5 and 9) and a C-47 transport unit (No 6 Squadron) from former RAF bases at Peshawar, in the North-West Frontier area and Mauripur, just outside Karachi, respectively. Before the end of 1947, too, several training establishments had been brought into operation, including the Initial Training Wing, the Elementary Flying Squadron and the Advanced Training Squadron at Risalpur, where pilots received instruction on the Tiger Moths and Harvards; and technical training and Base Repair Depot facilities at Drigh Road, Karachi. Other base facilities taken over — all in West Pakistan — included Kohat, Chaklala (Rawalpindi) and Lahore.

One of the first jobs of the newly formed Royal Pakistan Air Force was to continue the policing of the North-West Frontier area, where for many years the independently-minded and aggressive tribesmen had previously kept successive generations of the RAF fully occupied. Independence and political changes meant little to the ever-green Faqir of Ipi, who for the best part of this century, it seemed, had encouraged his war-loving tribesmen to develop near-perennial revolts into virtually a national pastime. Once again, such historic airstrips around the Khyber Pass area as Peshawar, Kohat and Miran Shah, which in earlier RAF days had reverberated to the roar of Falcon, Eagle, Jupiter and Kestrel aero-engines, came back to operational life. This time, however, it was the boom of the Centaurus, followed by the thunder of bombs, rockets and cannon, that echoed and re-echoed against the rocky and inhospitable walls of the Khyber Hills as the RPAF Tempests followed the policing precedent established by the RAF Bristol Fighters, DH9As, Westland Wapitis and Hawker Harts in their punitive action against the fortified and rebellious villages.





Above left: When the Royal Pakistan Air Force came into existence in August 1947, its first fighters comprised 35 Hawker Tempest IIs of World War II vintage, which had been transferred from India, to equip Nos 5 and 9 Squadrons. These were soon used operationally against dissident tribesmen in the turbulent North-West Frontier area, and were reinforced by a further 24 Tempest IIs purchased direct from the UK.

Left: Among the 90 or so piston-engined first- and second-line aircraft transferred from India after Partition in 1947 were 20 North American T-6 Harvards. With subsequent deliveries from the US and Canada, the PAF continued operating its Harvards for more than 20 years, and even used them in night offensive roles against forward Indian army units during the 1965 war.

Above: During the early 1950s the PAF purchased no fewer than 81 Bristol Freighter transports, comprising 32 passenger-carrying Mk 21Ps, 11 Mk 21Es and 38 Mk 31Ms, a total which Air Marshal Nur Khan later described as 'completely unrelated to our operational requirements.' Only four of these remained to be put back into PAF service by 1965, but played a useful part in providing logistics support for the combat forces.

As the RAF had found in many similar trouble spots, these policing operations provided an excellent basis for peacetime training with just enough hazard from topography, weather and occasional pot-shots from the ground to provide an essential touch of realism. While No 5 Squadron was operating its eight Tempest IIs from Miran Shah in the offensive role, No 6 Squadron with two serviceable Dakotas, was beginning its now long-standing support role by airlifting Pakistani troops out of Razmak for Peshawar, in December 1947. But the main battle at this time, with trained personnel, technical resources and spares so scarce, was as much to attain an acceptable serviceability rate with the old equipment which the RPAF had inherited, as to fulfil any operational commitments. At the beginning, the Pakistani squadrons were doing well if they got half their complement of aircraft into the air at any one time.

Even at this stage, however, it was obvious that considerable expansion would be necessary if the RPAF was to meet all its long-term commitments. A three-phase programme was therefore formulated by the Ministry of Defence in October 1947 to treble between 1948-50 the growth rate originally envisaged. The first-phase target, for completion by 31 March 1948, was two half-strength fighter squadrons each with eight aircraft; a transport squadron with five aircraft, an AOP flight with four aircraft, a communications flight with two aircraft, and the necessary training and support units. Since the first-phase target represented the entire existing strength of the RPAF at that time, its nominal achievement was duly attained, although there was still an acute shortage of technicians. No 6 Squadron actually had seven C-47s on strength rather than the five programmed, but the fighter units could only be brought up to full strength by orders for 24 more Tempest IIs from the UK. New training equipment was also required for the RPAF College to be formed at Risalpur during the second phase, for which 24 additional Tiger Moths were purchased from Britain, plus 30 surplus North American T-6s from the US.

In the next phase of its expansion, up to 31 March 1949, the RPAF was required to reach full 16-aircraft establishment with its two fighter squadrons; to build its transport squadron up to 20 aircraft; to have an eight-aircraft Air HQ communications squadron; an AOP flight with four aircraft; to establish a maintenance unit at Drigh Road; and an aircraft servicing unit at Chaklala. Personnel strength was to expand to 472 officers and 4,300 other ranks. Reasonable success was attained with this programme, which was followed by the third phase of the plan, for completion by 31 March 1950. Principal target for this phase of expansion was the doubling of RPAF combat strength to four 16-aircraft fighter-bomber



Above: Because of their almost embarrassing availability, the PAF's Bristol Freighters undertook an extensive range of transport and communications tasks in Pakistan for more than 10 years. Before the 1965 war, the PAF also adapted one or two of its Freighters to carry a 4,000lb 'blockbuster' bomb beneath each wing, and No 6 Squadron undertook a limited amount of training for the night bombing role against lightly defended targets. These paved the way for similar operations at a later stage with its C-130s.

Right: RPAF re-equipment in the early 1950s included the purchase of 92 Hawker Fury FB60 fighter-bombers from the UK, together with five two-seat Fury T61 trainers, to replace the Tempest IIs. In addition to four 20mm wing cannon, the Furies carried underwing rockets or bombs as alternatives to drop tanks. They equipped three squadrons (Nos 5, 9 and 14) and were used operationally in the North-West Frontier area from such bases as Peshawar and Miran Shah.





squadrons, accompanied by minor increases in the establishments of supporting flying units. As it happened, however, there was a slight diversion from this original plan with the acquisition from Britain of eight ex-RAF Halifax BVIs in 1949. These equipped No 12 Squadron for bomber and transport operations, in place of one of the planned fighter-bomber units, which were expanded to three by the formation of No 14 Squadron with Tempests. Another acquisition from Britain, at this time was a Vickers Viking transport, which joined the inventory of two Douglas C-47s and two Harvards of the Communications Flight at Mauripur. Much use was made of the Viking by Governor General Mohammad Ali Jinnah and this aircraft is now preserved in the PAF Museum as a personal relic of Quaid-e-Azam, the Founder of the Nation.

While air strikes continued sporadically, although often intensively, against rebel tribesmen in the North-West Frontier region, a more consistent pattern of operations was established by the RPAF transport units with their supply-dropping missions into Pakistani-held (Azad) Kashmir. Equally spectacular as the strike sorties, although in their own distinctive way, these transport missions involved keeping troops and villages cut off by snow bound roads supplied with the essentials of life solely through the medium of aircraft. Unfortunately, when fully loaded the C-47s had an effective ceiling of not much above 10,000ft in areas among mountains of anything between 16,000 and 20,000ft, climbing at their highest point to the soaring summit of 26,660ft Nanga Parbat. The Karakoram, in fact, form the western foothills, if that is the right word, of the Himalayan chain, and the RPAF transport aircraft could undertake their hazardous missions only by following the sinuous curves of the Indus valley, as it winds between precipitous walls of anfractuous rock often towering to twice their height or more.

Intimate local knowledge was necessary among the RPAF transport crews to identify the correct subsidiary valley that would lead to such mountain strongholds as Skardu, Astor and Gilgit. From being small, the margin

Above: In addition to 10 assorted Austers transferred from India in 1947 as part of its initial equipment, the RPAF placed orders for later versions in 1953, including this Aiglet, for AOP, liaison and communications.

for error became non-existent, since only in the few main outlets from the Indus valley is there sufficient room for the aircraft to scrape round the rock face and return from whence it had come. Most of the other valleys are sheer dead-ends, with walls steep enough to prevent them being out-climbed by aircraft with twice the performance of the ancient Dakotas then forming the mainstay of the RPAF transport force. Even when this was re-equipped during the early 1950s by no fewer than 82 Bristol Freighters purchased from the UK, no change in technique was possible with these unpressurised and piston-engined aircraft.

The Valley Flights were, and still are, essentially clear-weather operations, but there was always the threat of unexpected cloud descending to provide an additionally complicating factor to something that without careful training and skilful execution, was already marginal. But despite their relative inexperience, the RPAF transport crews converted the Valley Flights into a matter of regular routine. It is a measure of their skill and aptitude that when interception by RIAF fighters was added to all the natural hazards of the supply missions during disputes with India over Kashmir in 1948, the RPAF achieved the near-incredible feat of performing the Valley Flights for the best part of a year at night. The experience gained by the Pakistani crews with the Kashmir supply flights over nearly 20 years was to prove invaluable when the confrontation with India came to a head in 1965.

During its formative years, the RPAF therefore gained hard-won operational experience in a wide variety of climatic and topographical environments, ranging from the serried peaks of Kashmir, through the near-desert of the Southern Punjab, to the monsoon jungles of East Pakistan. Military development in the former East Wing

Right: During his first visit to the Pakistan Air Force in 1958, the author was shown something of the operational conditions in the North-West Frontier area in this two-seat Hawker Fury T61 of No 9 Squadron from Kohat.

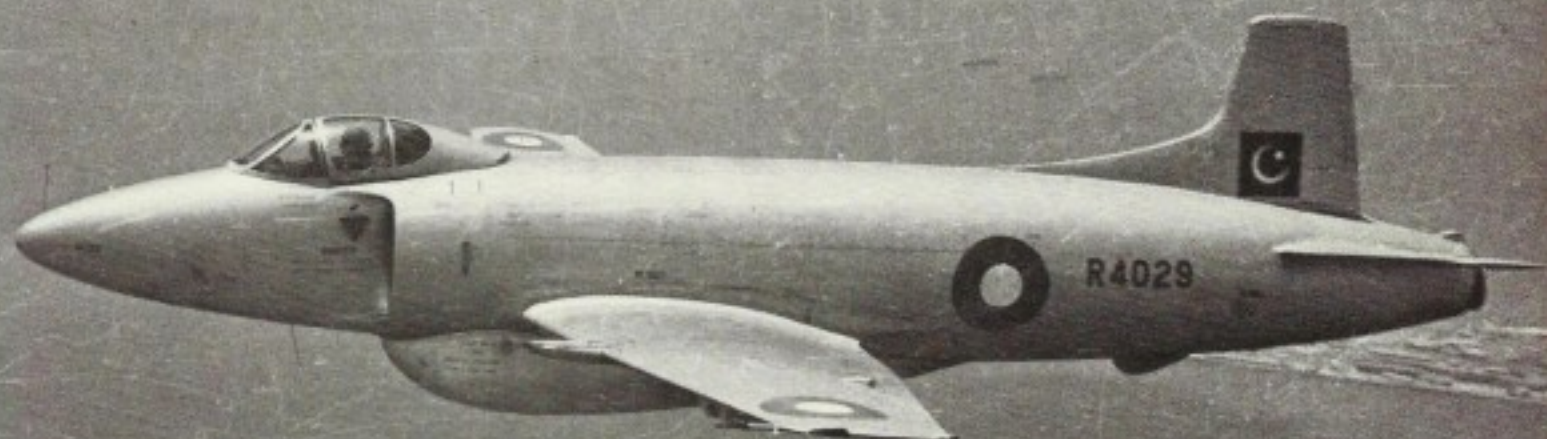
Below: After the end of their useful operating lives, following re-equipment of the PAF in 1957 with American aircraft, one or two Furies were retained for second-line duties, including target-towing. To balance the windmill-driven winch unit beneath the port wing, an inert 500lb bomb was carried on the starboard underwing pylon, and flag targets paid out via the attachment below the fuselage.



of the country (now Bangladesh) was naturally less intensive than in West Pakistan which contains the seat of Government and the main industrial centres. Original plans were for the establishment of Chittagong as the main RPAF base in East Pakistan, but the proclivity of the area towards tidal waves and cyclones resulted in the alternative decision to develop the airfield of Tezgaon, in the Eastern capital of Dacca, instead. There were also a large number of World War II airstrips available for emergency use in East Pakistan.

So in the early 1950s, the RPAF was evolving as a small but highly-trained and efficient organisation, retaining close associations with the RAF. The first British Commander-in-Chief, Air Vice Marshal A. L. A. Perry-Keene, who had served from August 1947 to February 1949, was succeeded by another seconded RAF officer, AVM R. L. R. Atcherley, for a further two-year stint. Atcherley, who created as much of a reputation during his stay in Pakistan as he had during the early days of the RAF, had the assistance of mostly British senior staff officers when he undertook a major reorganisation of the RPAF in 1949. He completely reshaped Air HQ, which in mid-1948 had been transferred from Peshawar, in the extreme north of West Pakistan, to Karachi (Mauripur), and formed separate Administration, Air and Maintenance Branches rather on the RAF pattern. Although by this time, the RPAF was undertaking its own pilot and ground crew training, many Pakistani flying and technical personnel were given advanced courses in the UK, which continued to be the main source for military procurement. Apart from the 32 passenger-carrying Bristol Freighter Mk 21Ps and 11 Mk 21Es ordered earlier, the early 1950s saw the arrival

Left and Top right: First jet equipment to be received by the RPAF comprised 36 Supermarine Attackers, in the early 1950s. These equipped only one unit — 11 Squadron — and were plagued with technical problems during their brief service career in Pakistan.



of a further 38 Freighter Mk 31Ms as a follow up to the purchase of 92 Hawker Fury FB60 fighter-bombers and five two-seat Fury T61 trainers to replace the 32 ageing Tempests. At the same time, in 1951, the RPAF received its first jet aircraft in the form of 36 Supermarine Attackers, also purchased from Britain.

With the possible exception of the Attackers, which equipped only one unit — No 11 Squadron — and suffered many technical problems throughout their service, the RPAF was now well-equipped for its principal roles at that time of internal security and support operations. When AVM Atcherley was replaced, in May 1951, by yet another senior RAF officer, AVM L. W. Cannon, who was to remain in command of the RPAF for just over four years, he had reorganised and revitalised the structure of the entire service, and had instituted vital, and long-term measures for ensuring a consistent flow of suitable recruits and trained personnel. Foundations had been laid for eventual expansion to a 10-squadron establishment, which received Government approval in 1952, although even by March 1953 the RPAF was well short of this target. First-line strength then comprised only three fighter-bomber squadrons (Nos 5, 9 and 14) with piston-engined Hawker Furies, plus the sole jet unit (No 11 Squadron) operating Attackers, supported by two transport squadrons (Nos 6 and 12) with Freighter Mk 21Ps and Halifax VIs, respectively, as basic equipment. No 12 Squadron was designated as a composite unit, with maritime reconnaissance as well as transport and communications among its tasks. Apart from the Halifaxes, it also operated several Bristol Freighters, as well as a couple of de Havilland Doves and the Presidential Viking.

As it then stood, however, the RPAF did not stand much chance of meeting its expansion target figures, mainly because of budgetary and training restrictions. The turning point in its development programme came on 19 May 1954, with the signing of a mutual defence assistance alliance with the United States, as a prelude to Pakistani participation in the CENTO and SEATO pacts

against Communist aggression. To help fulfil its commitments to these agreements for collective action by neighbouring and allied countries, Pakistan began to receive American defence equipment and training aid from a US Military Advisory Group. This necessitated an entire reorientation and reorganisation of the RPAF, particularly in the spheres of maintenance and supply. American concepts of organisation, centralised maintenance and operations were also incorporated to some degree in the administration of the RPAF air bases, to achieve economy of effort and optimum utilisation of both aircraft and technical manpower.

Apart from the supply of modern and combat-tested aircraft equipment, one of the most valuable aspects of the US military aid to Pakistan may well have proved to be the importation of the fighter tactics evolved the hard way from USAF experience in jet combat between Sabres and MiG-15s in Korea. From its original RAF World War II basis, the RPAF shifted its training to the American techniques of the jet age. Many Pakistani pilots were soon being initiated into such classic jet manoeuvres as the 'scissors', the 'yo-yo' and other well-tried tactics and counter-moves at training schools in the US and Germany, as well as at their own bases with the help of American instructors. They proved apt pupils and, after they had settled down with their new equipment, were eventually able to equal or exceed the standards set by their American mentors.

So far as the aircraft re-equipment programme was concerned, various proposals were discussed, including the supply of an all-weather interceptor squadron with Convair F-102s and a light bomber wing of Douglas B-66s. As finalised, however, the Mutual Aid Program for the RPAF mainly envisaged the operational establishment, by the end of 1957, of four day-fighter/interceptor wings, each of two squadrons with 12 F-86F Sabres and one Lockheed T-33A on establishment, plus an additional Sabre for the wing leader. Alfa Wing, of Nos 18 and 19 Squadrons, was to be based at Mauripur; Bravo Wing (11 and



Above: Mainstay of the US package which completely re-equipped the RPAF following conclusion of a mutual defence assistance alliance in 1954 was the North American F-86F Sabre, on which as Assistant Chief of Air Staff (Operations), Nur Khan insisted in preference to the Republic F-84 Thunderjet, favoured by the current (RAF) C-in-C.

Right: MAP equipment received by the PAF from 1955 onwards included 24 Martin B-57B, RB-47B and two B-57C trainer Canberras to form two squadrons (Nos 7 and 8) comprising No 31 Bomber Wing, based at Mauripur, Karachi. These were to play a notable part in the counter-air operations of the 1965 war with India.





Above: B-57Bs seen at Mauripur, Karachi.



Left: Among the second-line equipment in the American MAP package of the mid-1950s were 35 Cessna T-37C jet trainers to supplement the North American T-6 Harvards operated by the RPAF College at Risalpur. The PAF trained pilots for several years in parallel streams on the T-6 and T-37, before the venerable Harvards were finally retired in the early 1970s.



15 Squadrons) at Peshawar; Cocoa Wing (16 and 17 Squadrons) at Sargodha; and Delta Wing (14 and 15 Squadrons) at Samungli.

A light bomber squadron was to be established, in addition, with 20 Martin B-57 Canberras at Mauripur, which would also be the base of the the 20th Reconnaissance Squadron with 16 Lockheed RT-33As and four Douglas RB-66s. Only half a dozen RT-33s, however, and no RB-66s were ever received for the latter unit, which operated for most of its existence as a flight rather than a squadron. Supporting units envisaged in the MAP plan included a Search and Rescue flight, at Drigh Road, with eight Sikorsky H-19A helicopters and four Grumman SA-16 Albatross amphibians. A Jet Conversion School was also planned for pilot training at Mauripur, with 11 Lockheed T-33As and six North American F-86Fs on initial establishment, while for basic instruction, the RPAF College was to receive 35 Cessna T-37 jet trainers plus spares for its existing North American T-6s.

The American blueprint for an instant air force extended to all the spares, support equipment and ammunition for up to 60 days of war operations without reinforcement. It even included a couple of Aircraft Control and Warning sites with the necessary ground radars and communications equipment to provide a complete air defence organisation. With one or two minor changes, the MAP package reshaped the RPAF exactly as planned.

Within a few weeks of the mutual defence agreement with the US, the first American aircraft began arriving in Pakistan in the form of additional North American T-6G basic trainers to supplement those already operating with the RPAF College at Risalpur. Then 15 T-33A jet trainers soon followed to replace the Tempests and Furies of No 2 (Fighter Conversion) Squadron at Mauripur. Re-equipment of the first operational units with Sabres began towards the end of 1955, when Nos 5 and 14 Squadrons converted from Furies, followed in 1956 by the replacement of No 11 Squadron's Attackers.

Continued deliveries of the F-86F, to an overall total of 102, enabled four more squadrons (Nos 15, 16, 17 and 18) to be formed as planned. The eighth Sabre squadron, however, did not materialise since No 9 Squadron retained its Furies as being more suitable for operations in the NW Frontier region, where manoeuvrability and low-altitude endurance were at a greater premium than high-speed performance.

Nevertheless, by 1956, when on 23 March Pakistan was declared an Islamic Republic (thus losing the air force its 'Royal' prefix), first-line air strength had been just about doubled within a year, with an additional improvement in efficiency. US assistance was also received for an airfield expansion and infrastructure



Right: MAP assistance from the US extended to the initial supply of four Grumman SA-16A Albatross amphibians for the establishment of a Search and Rescue flight at Drigh Road air base, Karachi. The Grummans were subsequently used for coastal patrol and maritime reconnaissance.



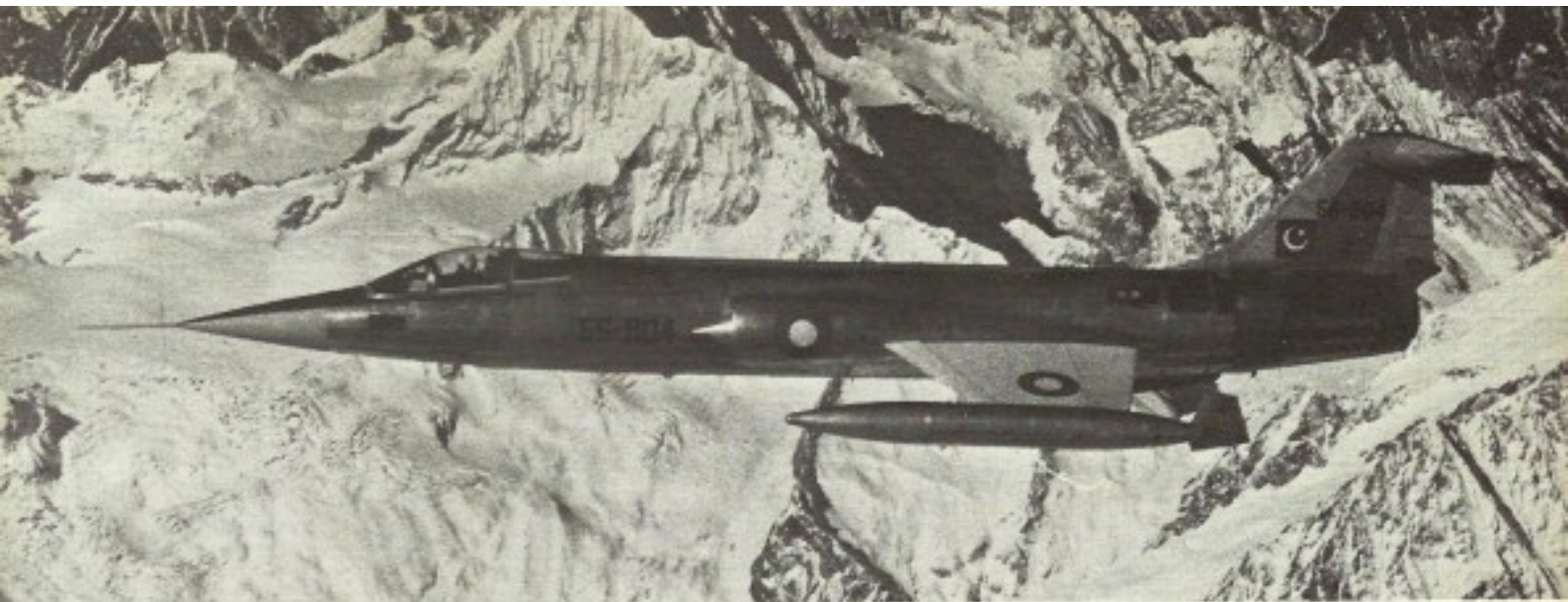


Above: Standard advanced trainer in the PAF since the first 15 were delivered in 1955-56 to replace the Tempests and Furies of No 2 (Fighter Conversion) Squadron at Mairipur, the Lockheed T-33A was also pressed into service in ground-attack roles against forward-area Indian targets during the 1965 war.

Centre right: Eight Sikorsky H-19A Helicopters were supplied by MAP for the establishment of a Search and Rescue Flight at Drigh Road air base, Karachi.

Bottom right: Although no photograph appears to exist of the GD-modified Martin RB-57F high-altitude reconnaissance aircraft in PAF markings, two of these highly-specialised aircraft were operated by Pakistan for several years on electronic and photographic surveillance missions, including overflights of India. One remained in service in 1965 for the latter operations, in which it was eventually damaged by fragments from a Soviet-supplied SA-2 'Guideline' SAM while descending from its peak operating altitude. The ground angle of the RB-57F's 122ft 5in span extended wing — virtually twice that of a standard B-57B Canberra — earned it its nickname of 'Droopy'. The PAF's two RB-57Fs were operated by No 24 Squadron, before their eventual return to the US.





programme, and deliveries continued of the remaining MAP equipment. It was perhaps ironic that the first stage of PAF Americanisation was achieved under the command of Air Vice Marshal A. W. B. McDonald, RAF, who had succeeded AVM Cannon in June, 1955. But the former was the last seconded RAF officer to hold the position of commander-in-chief, and it was a notable milestone in the coming of age of the PAF when its direction was finally taken over by a Pakistani in July, 1957. Air Vice Marshal M. Asghar Khan was an admirable choice as the first Pakistani C-in-C. He was young — then about 36 — but experienced, having flown with the RIAF in World War II and commanded No 9 Squadron when it was operating Spitfire XIVs in 1946. He believed in leading from the cockpit rather than from behind a desk, and inspired tremendous loyalty and efficiency through personal example and leadership.

Within a year or so of his taking over, the PAF had received most of its remaining MAP equipment, notably 24 Martin B-57B, RB-57B and two B-57C trainer Canberras to form two squadrons (Nos 7 and 8) in No 31 Bomber Wing in 1959, as well as additional second-line aircraft such as the H-19 helicopters and Grumman amphibians. Tacit acknowledgement by the US of PAF proficiency was then apparent from the MAP delivery in 1960 of 12 Mach 2 Lockheed Starfighters, which finally replaced the piston-engined Furies of No 9 Squadron. Although early model F-104As, plus a couple of two-seat F-104B trainers, these sophisticated interceptors were equally demanding of both flying and maintenance skills. Few indeed were the air forces outside NATO judged by the Americans to be capable of making effective use of them, and the PAF was the first.

With the arrival of these bisonic interceptors, with their long-range armament of Sidewinder infra-red homing missiles reinforced by a 6,000rpm 20mm Vulcan six-barrelled cannon, the PAF had evolved by 1958 into a highly potent and balanced combat organisation of 10 fighter-bomber, light bomber and interceptor squadrons, with an additional tactical reconnaissance flight equipped with six Lockheed RT-33As. This was a transformation in a matter of about four years from the earlier four-squadron force of ageing operational types, and intensive training was necessary to man and maintain the new equipment. There was also a change in organisation to

Above: Recognition by the US of PAF proficiency was provided in 1960 by the MAP delivery of 12 Mach 2 Lockheed Starfighters, which finally replaced the piston-engined Furies of No 9 Squadron. Pakistan was the first non-NATO country to equip with the Starfighter, and one of its F-104As is seen here against the background of the Karakoram Mountains, near the Kashmir border.

establish the PAF on a single combat command structure, from the formation of No 1 (Operational) Group, plus a maintenance group in addition to Air HQ, and on this basis it became possible to progress from expansion to consolidation over the next few years.

In the early 1960s, the remaining MAP aircraft arrived. As non-combat types and for second-line operations, these were still extremely important for supporting roles. Delivery of four Lockheed C-130B Hercules in 1963 followed by a further two of these big, pressurised, turboprop transports, enabled No 6 Squadron to begin phasing out its Bristol Freighters, which had completely disappeared by the end of 1965. The Hercules also allowed the PAF to revise its Valley Flight techniques by overflying the Karakoram before letting down into the mountain airstrips and dropping zones, with a corresponding improvement in safety margins. Other American equipment to arrive at the same time included the Cessna T-37B jet trainers, which resulted in a badly-needed reinforcement of PAF pilot output facilities at Risalpur, and a few Kaman HH-43B Huskie turbine helicopters for Search and Rescue and general support missions under hot and high operating conditions.

One further change in the operational organisation came in 1962, when it was realised that even with 10 first-line squadrons, the PAF was too small to warrant three separate HQ. First of all the Maintenance Group was dispensed with as a separate organisation, and this was soon followed by the disbandment of No 1 (Operational) Group HQ. Command reverted solely to Air HQ, with direct links from the commander-in-chief to the various station commanders. At this time, the PAF was operating from relatively few permanent bases, nearly all of which were in West Pakistan. These included Mauripur and

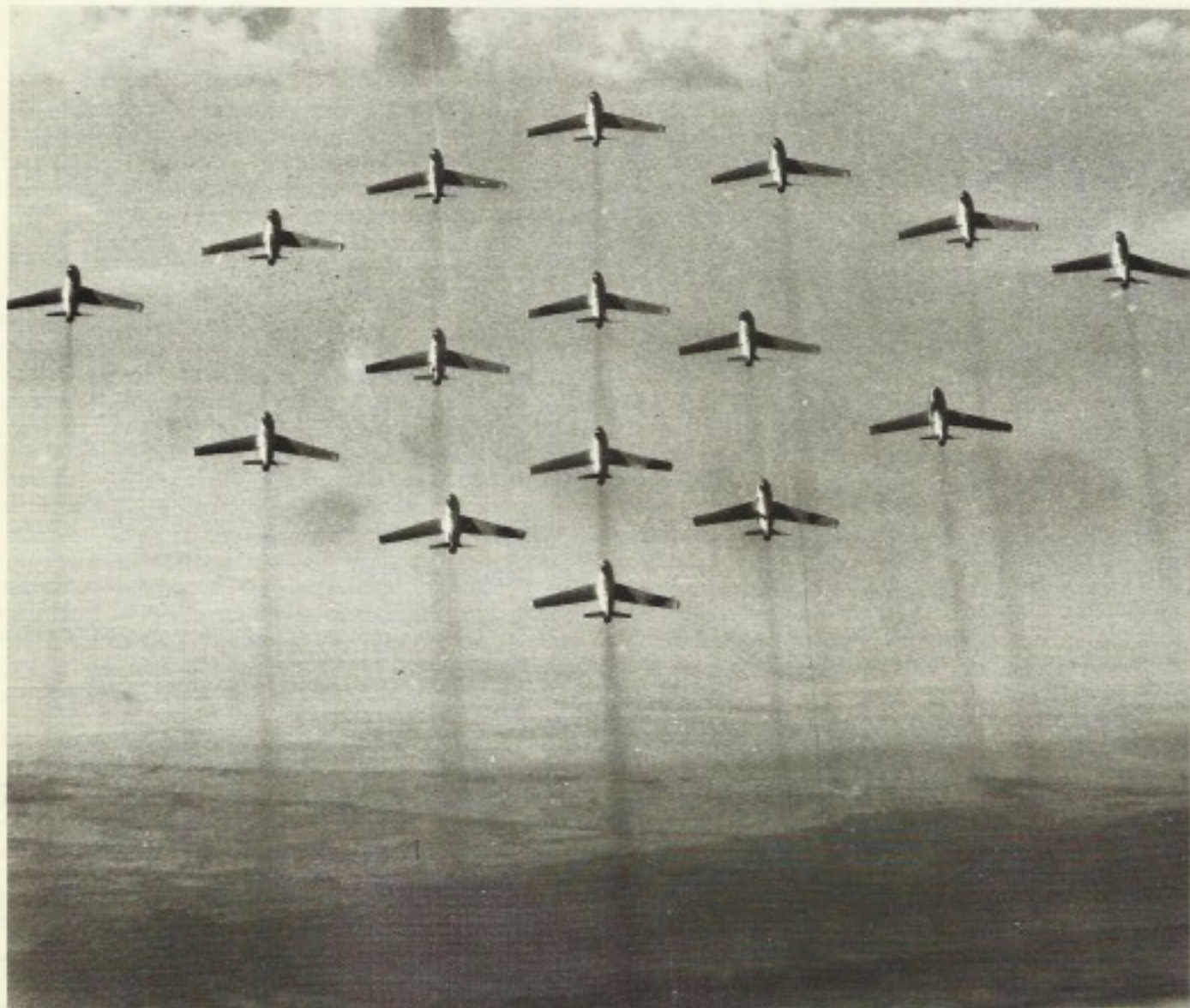
Drigh Road, near Karachi; Samungli, near Quetta, Baluchistan; and Lahore, Chaklala, Sargodha, Kohat, Risalpur and Peshawar in the Central and Northern Punjab. No operational units were permanently deployed in East Pakistan, where Tezgaon, Dacca, served as the primary terminal for inter-wing transport flights, by PAF Freighters and Hercules.

Peshawar, of course, near the Khyber Pass — gateway to Afghanistan and Central Asia — was the starting point for the now famous and disastrous high-altitude reconnaissance overflight of the Soviet Union by American CIA pilot Gary Powers in a Lockheed U-2, in May 1960. These overflights have now been largely superseded by uninterceptible reconnaissance satellites

used both by the US and the Soviet Union, but in the early 1960s the PAF was given a limited strategic capability in this respect with the supply by the US of a couple of GD/Martin RB-57F Canberras.

These much-modified ultra-high altitude reconnaissance aircraft, whose enormous 122ft span anhedral wings earned them the nickname of 'Droopies', were fitted with two extra 3,300lb thrust Pratt & Whitney J60-P-9 auxiliary turbojets to augment the output from the two massive 18,000lb P & W TF33-P-11 turbofans — already giving more than twice the thrust of the standard B-57B engines. With all its extensive changes and array of photographic and avionic sensor equipment, the RB-57F could cruise comfortably at up to about 70,000ft or so, out of reach of missile or fighter interception, for either strategic reconnaissance or electronic intelligence (ELINT) duties. In conjunction with a couple of suitably-equipped RB-57Bs, the RB-57Fs were operated by a special PAF reconnaissance unit — No 24 Squadron — to supplement the tactical recce effort of the six Lockheed RT-33As of No 20 Squadron. Both units, which brought the PAF first-line strength to a dozen squadrons, were to play significant roles in the forthcoming operations against India.

Below: PAF competency with its newly-acquired F-86Fs was soon reflected in its formation aerobatic performance, which included the first loop by a full squadron of 16 aircraft. The PAF claimed to be the first to loop this number of jets in formation.



3. Operation Desert Hawk

South of Karachi, and of the tributaries forming the mouth of the mighty Indus, a desolate area of mud, swamp and salt flats stretches eastwards for almost 200 miles into India. For much of the year, the Great Rann of Kutch,* as this wasteland is called, is submerged by monsoon flooding, and the international boundary between Pakistan and India in this uninhabitable area has never been defined. Even in the days of the British Raj, the demarcation of the provincial boundaries of this sandy tract between Sind and the former princely state of Kutch Bhoj was undetermined. At the time of partition, however, India laid claim to the northern part of the Rann of Kutch, which came under the administrative control of Sind, in West Pakistan. The disputed area comprised about 3,500 square miles situated roughly north of the 24th Parallel, and from 1947 onwards was policed by Pakistan from a post at Chhad Bet. But for India, it remained a temptation which was resisted only until February 1965, when military forces with air support overran the Pakistani post and village and occupied the northern part of the Rann of Kutch, to establish a de facto frontier.

In view of the apparent worthlessness of the terrain, Pakistan contented itself with a strong protest to the Indian Government concerning this action. The Indian occupation of the Rann of Kutch took on a different aspect, however, following exploration of the area, with Soviet assistance, around Vigjokot, Karim Shahi and Khavda, in February 1965. This led to reports confirming the likelihood of oil in the region, which may possibly have been one of the main reasons for Indian attempts, within the next few weeks, at the complete occupation of the Rann of Kutch.

On the face of it, there can seldom have been a more unprepossessing area over which to fight, but an Indian military build-up (Exercise Arrow Head) in March at Chhad Bet was matched by Pakistan along the de facto border. On 6 April 1965, 8 Infantry Division HQ received the following directive from Pak Army:

'Failing satisfactory response [to the Pakistani demand for an Indian withdrawal from the Rann of Kutch] all necessary measures to be taken to deny Indian offensive activities and to assert our claim, including occupation of such few positions in the disputed territory as would place our forces in a favourable situation to negotiate for closure of the newly established Indian posts... If Indians react unfavourably to our defensive action enumerated above, our forces to take necessary counter-measures including action in the disputed territory in de facto control of India...'

Almost inevitably, this confrontation between about three Indian infantry brigades and Nos 6 and 51 Brigades of 8 Pak Army Division erupted into a shooting war early in April around the Pakistani post at Ding, at the western end of the Rann of Kutch, with continued skirmishes resulting in minor casualties on both sides. There was a brief lull after Pakistan had made proposals for a peaceful settlement of the issue on 9 April, but no official answer to this move was received from India until 24 April, when it was formally rejected. In the meantime, India was able to regroup its forces to reoccupy several posts which had changed hands in the area, although one of two successful raids were made by Pak Army units.

Operations reached their peak on 26 April 1965. Elements of 8 Div ordered up earlier by the Pakistani Army C-in-C, General Mohammad Musa, under the codename Operation Desert Hawk, were then reinforced by a squadron of tanks for an attack on the Indian-occupied post of Biar Bet. Located approximately midway between Ding and Chhad Bet, this was overrun

*In Hindi, *Rann* means battlefield, and its probable application in this case may derive from defensive action by the Muslim ruler of Sind against potential invaders in 1762. *Kutch* can be translated as swamp or coastal land.

Right: As Commander-in-Chief Designate of the PAF, Nur Khan — then an Air Vice-Marshal — arranged to fly over the Kutch battle area after the cease-fire on 28 April for a personal assessment of the situation, in a Cessna L-19E (0-1E) Bird Dog of Pakistan Army aviation. Pakistan received nearly 100 L-19s as part of the US aid package, plus a few Beech L-23 light twins for liaison and a number of Bell H-13 helicopters.

Below: In addition to the Cessna L-19s supplied direct from the US, the Pakistan Army also assembled a number of Bird Dogs on its own account from spare parts and some indigenous construction. This was done at No 503 Army Workshop, at Dhamial, near Rawalpindi.





and captured by Pakistan forces after a fierce battle ending at 06.30hrs the following morning. 8 Div lost only one ammunition truck among its vehicles, and claimed to have inflicted heavy casualties on the retreating enemy. Further hostilities were stopped by diplomatic intervention from the British Prime Minister, Sir Alec Douglas-Home, resulting in an unofficial cease-fire on 27 April. This came into formal effect by 1 July, but the Rann of Kutch affair was all over barring some sporadic shooting by the end of April 1965.

If necessary, the Indian ground forces in the Kutch area could have called upon considerable air support for their operations. Several strike and reconnaissance squadrons were immediately available from such IAF bases in the vicinity as Jamnagar, where there was one Vampire fighter-recce squadron, a detachment of Gnats and one fighter-bomber squadron with Vampires and Ouragans. These were reinforced by a Canberra bomber squadron transferred from Agra on 19 April. At Poona, there was also one Canberra, one maritime reconnaissance and two Vampire squadrons, with a radar early warning installation at Dwarka; a GCI unit at Bombay; and three bomber guidance units at Dwarka, Bhuj and Utterlai. As it happened, however, air operations were conspicuously absent from the Kutch campaign, through rather curious circumstances. When hostilities began over the border dispute early in April, the PAF immediately began to prepare for action. At the same time, the Commander-in-Chief, Air Marshal M. Asghar Khan, contacted his opposite number in India, Air Marshal Arjan Singh, with the idea of coming to an understanding over the use of aircraft in the disputed area, and perhaps limiting the scope of conflict.

Above: A Bell OH-13 helicopter of the PakArmy's Aviation Wing. During the lead-up to the war with India in 1965, PakArmy light aircraft were exempt from the rigorously observed restriction which prevented the PAF from flying closer than 30 miles to the Indian border.

Such a move in the interests of peace was perhaps only possible between two senior officers who had earlier served together as comrades in the same pre-partition Indian Air Force squadron. Although no firm guarantees in this respect were received from India, this high-level liaison was undoubtedly a major factor contributing to the absence of air operations in the Rann of Kutch dispute. The situation was precisely summarised by the PAF C-in-C in a signal to the Army Commander and GOC 8 Div on 17 April:

'Regarding air operations over Rann of Kutch. Discussed the matter further with Air Marshal Arjan Singh and have been unable (repeat) unable to reach an agreement regarding operation of aircraft over this area. No (repeat) no agreement therefore exists between the two air forces. Have gauged from my talks with Arjan Singh that Indian armed aircraft, however, unlikely to operate in the area.'

As one Pakistani official was quoted at the time as saying about the discussions between the Cs-in-C: 'Killing each other's troops in a salt flat without a blade of grass for cover struck them both as none too sporting.'

Escalation apart, the PAF was equally anxious to avoid air support operations for more tactical reasons. Conscious always of being outnumbered by about five to one by the IAF, which also had nominally superior



aircraft, the PAF had always accepted the air defence of Pakistan as its primary objective. As a small force it had also assumed that its defensive commitments and need for minimal attrition would leave it insufficient resources for close support missions, and the army staff was constantly reminded by the PAF that its operational planning should assume a complete absence of air cover. This philosophy was implicit in other signals to 8 Div during the Rann of Kutch campaign, such as this one sent in 12 April:

'Air support will be provided only if enemy air attacks targets in our territory. Oblique photographs [by RT-33As of No 20 Squadron] will only be done from within own territory, subject to modification if enemy air becomes over-active in own territory.'

There is also additional evidence indicating that despite the lack of formal agreement with India concerning the use of military aircraft in the Kutch dispute, there was a tacit assumption — at least on the Pakistan side — that air power would not be involved. In another Desert Hawk signal, on 15 April, PakArmy observed:

'Our forward elements reported Indian light aircraft flew over area Kanjarkot (just south of Ding), hence agreement between C-in-C PAF and C-in-C IAF reported (vide our signal G-1037) violated. In view of above have authorised own L-19s may also cross de facto boundary if required, observing due precautions against ground fire.'

Several points from this signal require comment. In the first place, there was an assumption of agreement between the two air force Cs-in-C which was directly contradicted in the later signal of 17 April. Only Army light aircraft

Above: An Ouragan (Toofani) squadron of the IAF. These obsolescent straight-winged Dassault fighter-bombers were not operationally active with the IAF after the Rann of Kutch dispute.

Above right: Mutual aid deliveries to the Pakistan army included M-47 and M-48 Patton tanks, shown here in operational service during the 1965 war.

Right: The Rann of Kutch dispute in April 1965 brought the PAF to a high state of alert, and armed combat air patrols and reconnaissance sorties were flown by F-86Fs from Mauripur, Karachi, normally main base of the B-57 bomber wing.

used for reconnaissance and perhaps artillery spotting were involved, however, without apparent risk of escalation. Like the PAF, the Pakistan Army had benefited considerably from the earlier US Mutual Aid Program. Among a great deal of other equipment, including M-47 and M-48 Patton tanks and M-24 and M-41 light armoured vehicles, the Pakistan Army had received enough aircraft for a complete air wing, comprising nearly 100 Cessna L-19E (O-1E) observation lightplanes, plus a few Beech L-23 light twins for liaison and a number of Bell H-13 helicopters. Army light aircraft were exempt from the rigorously observed restriction which prevented the PAF from flying closer than 30 miles to the Indian border, except, of course, at such places as Lahore.

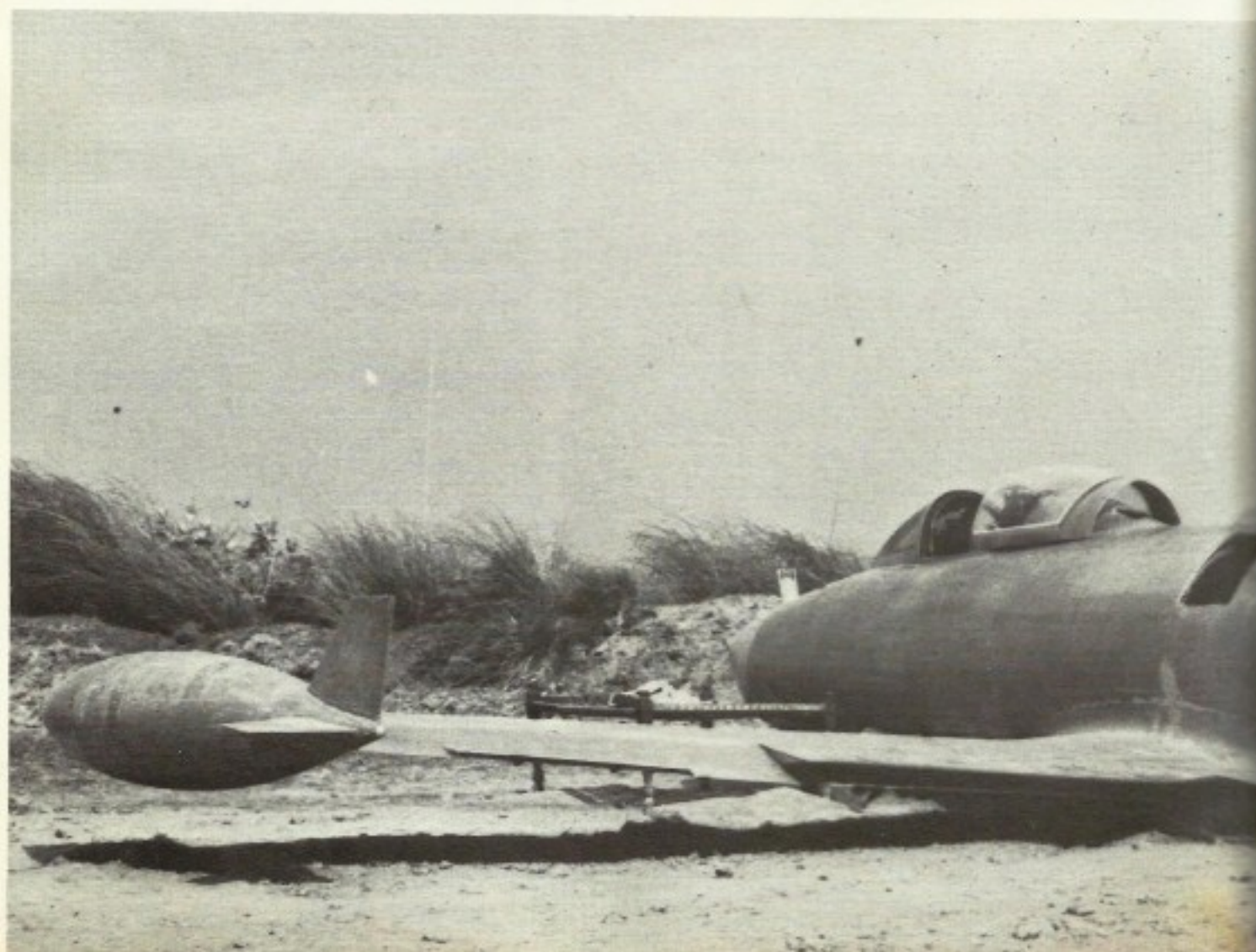
It was in a Pakistan Army Cessna L-19 that the Commander-in-Chief Designate of the PAF, Air Vice Marshal M. Nur Khan, took it upon himself to fly over the Kutch battle area on 28 April, the day after the unofficial cease-fire, for a personal assessment of the situation. Although AVM Nur Khan was then still running Pakistan International Airlines, he made it his



duty to investigate supply problems being experienced by the forward troops in the desolation of the Rann of Kutch, where the PAF had previously shown little or no interest, and subsequently arranged for logistic support to be provided by some of his C-130 Hercules transports.

Although the PAF sought to avoid adding air combat to the Rann of Kutch hostilities, suitable preparations were made to meet possible Indian activity. As the nearest base to the area, Mauripur, just outside Karachi, was placed on alert status from 15 April 1965 onwards. At the same time, the fighter airfield at Sargodha, facing the large IAF bases at Pathankot, Adampur and Halwara, moved to a similar state of readiness. The PAF B-57s and Sabres were ordered to their wartime dispersals, and operations rooms at the two bases, as well as the Air Defence Operations Centre (ADOC) at Air HQ were placed on 24-hour watches. Also alerted, and moved to their war locations, were Nos 229 and 234 Squadrons, as the mobile components of the Sector Operations Centre (SOC) at Badin, in the south of West Pakistan.

Badin was the site of one of the two high-powered FPS-20 static early-warning and control radars supplied to Pakistan by the US as part of the Mutual Aid Program. With the second installation at Sakesar, further north in West Pakistan, and serving the main advanced base at Sargodha, the PAF could scan an arc of just over 200 miles to detect incoming aircraft and vector its own fighters for an interception. There were also older and obsolescent radars at Thatta and Rahwali, plus even





Although there were no air operations of any significance during the Rann of Kutch dispute which preceded the 1965 war with India, two Sabres were scrambled from Mauripur on 24 April to intercept a single aircraft heading deep into Pakistani air space towards Karachi. The intruder turned out to be a fully armed Dassault Ouragan, known as Toofani by the IAF, which was successfully intercepted and forced to land near Jangshahi. Apart from wiping off its undercarriage, the Ouragan received little damage on landing, and its pilot — from No 51 Auxiliary Squadron of the IAF — was captured unhurt. The damaged Ouragan, which appears to have crossed the border by mistake in poor visibility, is now in the PAF Museum at Peshawar.



more ancient Type 13, 14 and 15 equipment with a range of 100 miles in East Pakistan. In the west, however, low-level coverage was complicated by the mountains in some areas, and there were many gaps in the defence belts. It was not until immediately after the 1965 war with India, in fact, that a few low-level type 501B radar sets were obtained from the Army, to remedy some of the deficiencies in the PAF early-warning network. But supplementing the more sophisticated air defence equipment right from the beginning was a network of Mobile Observer units, over radii of 30, 60 and 100 miles, linked by telephone or radio to the operations centres. When operations began in earnest, these ground observers proved to be a major factor in ensuring adequate warning of nearly all intruding Indian aircraft.

So far as its own countermeasures against the IAF radar defence system were concerned, the PAF had been far from idle. Well before the start of hostilities, the Pakistanis had established radio listening posts for their electronic intelligence organisation, and airborne ECM and surveillance devices were constantly in use both before and during the 1965 war. The two specially equipped Martin RB-57Bs and two RB-57Fs employed by the PAF on these electronic intelligence (ELINT) duties, had pinned down the main performance limitations as well as the locations of the principal Indian radar installations at Ambala and Amritsar before a shot had been fired. And in the subsequent strikes against the main Indian surveillance radar at Amritsar, controlling and protecting the IAF squadrons in the Pathankot, Adampur and Halwara complex, the ELINT aircraft of the PAF continued to play a major role.

As it happened, there were no air operations of any significance during the Rann of Kutch dispute, but as a result of Desert Hawk, the PAF was poised for instant action. Armed combat air patrols and reconnaissance sorties by F-86Fs from Mauripur, reinforced by two F-104A Starfighters, on detachment from Sargodha, initiated from 17 April onwards, were kept well behind the disputed frontier, to avoid provocation, although it seems that the IAF was less careful in this respect. On 24 April, for example, after early warning from Badin, a section of two Sabres was scrambled from Mauripur to intercept a single aircraft which was heading deep into Pakistan air space. By the time the Sabres had made visual contact, with some difficulty in the poor visibility characteristic of the Punjab, Delhi and Rajasthan areas at that time of the year because of dust in suspension and haze, the intruder was 50 miles inside Pakistan territory, apparently heading for Karachi.

Visual confirmation that the target was an Ouragan fighter-bomber bearing the green, white and saffron roundels of the IAF and flying at about 2,000ft above the ground, resulted from a warning pass made by the PAF Sabres. Before they could position themselves for an attack, however, the Ouragan lowered undercarriage and flaps in surrender, and made a forced landing near the village of Jangshahi. Apart from wiping off its wheels, the Ouragan received little damage on landing, and the pilot, Flt Lt Rana Sikka of No 51 Auxiliary Squadron, Jannagar, was soon captured unhurt, after attempting to pass himself off as a member of the PAF. Although the Ouragan was fully armed, it seems that its pilot had

strayed across the border by mistake, and he was returned to India in August. The damaged Ouragan is now among the main exhibits in the PAF Museum.

Two other air space infringements by IAF aircraft took place before the cease-fire. Both could have resulted in a serious escalation of the air war but for restraint on the part of the Pakistanis. On one occasion, an IAF reconnaissance Canberra crossed the border north-east of Sargodha, and was trailed visually for more than 10 minutes by an F-104A Starfighter, flown by the late Flg Off Mushtaq. In the absence of orders for the destruction of the enemy, however, it was allowed to return to India unscathed. After another aircraft had dived on Pakistani troops behind the battle line, and had drawn some ground fire, two B-57 Canberras were scrambled from Mauripur at the request of the Divisional HQ, for immediate reprisals. When it was discovered that the IAF aircraft had not actually attacked the Pakistani troops, however, the B-57s were recalled before they had reached the battle area.

Although air operations therefore played little part in the Rann of Kutch dispute, this was of considerable significance to the PAF in rehearsing its transfer to a war footing and in underlining some of the deficiencies in its planning and organisation. Army support procedures, for example, were overhauled as a result of the Desert Hawk commitment for the Mauripur aircraft to fly at least six simulated tactical ground attack missions per day. At that time, there was no Joint Operations Centre (JOC) to process Army requests for air support to the PAF, but to improve such liaison, a group captain was attached to GHQ, and a squadron leader to HQ 8 Div. The effectiveness of this liaison may be judged from a signal sent by the Army GOC, Gen Mohammed Musa, on 6 July 1965, to the C-in-C PAF, Air Marshal M. Asghar Khan:

'Now that the emergency has receded, convey very high appreciation of all ranks of Pak Army and of my own for the whole-hearted cooperation of officers and ORs of PAF. Their professional efficiency, high morale, dedication to duty and personal conduct very very inspiring.'

If nothing else, Desert Hawk revealed an essential need for a specific commitment for Army support in PAF war planning. This was accordingly reviewed even before the official cease-fire came into effect in the Rann of Kutch area on 1 July 1965. Additional urgency to the task of reassessing Pakistan's defence aims was added by the ominous comment from Indian Prime Minister Shastri on the Kutch affair to the effect that, 'Next time, we'll choose our own time and place to fight.'

It was therefore hardly surprising that while most PAF units reverted to peacetime procedures before the end of July 1965, thus officially ending Desert Hawk, the air staff were increasingly preoccupied with thoughts of war. A reassessment of PAF policy at this time was additionally appropriate in view of the pending change in command. After eight momentous years as Commander-in-Chief, during which he has seen the PAF grow out of all proportion to its origins, Air Marshal Asghar Khan was due to retire in July 1965 and exchange jobs with his successor, Air Vice Marshal M. Nur Khan, then managing director of Pakistan International Airlines.

4. The PAF Prepares for War

If Air Marshal Asghar Khan had built the foundations of Pakistan's air power, Air Vice Marshal Nur Khan was the ideal choice to consolidate it. Then in his early 40s and slight of stature, his compelling personality was the personification of leadership. Immediately prior to his appointment as C-in-C, he had spent six years transforming PIA from a struggling minor carrier into an airline recognised internationally for its technical standards, service and profitability. With the additional responsibilities of Chief Administrator of Civil Aviation and Tourism, Nur Khan had gained wide commercial experience which gave him an unusual breadth of vision in military circles. He was no less qualified for his service responsibilities, however, since he had originally graduated from the Royal Indian Military College, Dehra Dun, and had seen operational service as a fighter and dive bomber pilot, with the RIAF in South-East Asia during World War II.

Like his predecessor, Asghar Khan, AVM Nur Khan believed in leading from the cockpit. Despite having been away from practical flying for several years while administering PIA, Nur Khan began flying the very sophisticated Starfighters of No 9 Squadron within a few days of taking over command of the PAF on 23 July 1965. He went on to work up his air-to-ground gunnery in both the Starfighter and the Sabre until he was setting his pilots the near-impossible example of 100% scores, with every round hitting the target.

As a born fighter pilot, Nur Khan combined a natural aggressiveness in his flying with a shrewd appreciation of tactical and logistical problems from behind his desk in Air HQ. His forthright opinion of the gentleman's agreement between the PAF and the IAF to stay out of the air during the Rann of Kutch crisis was that it was nonsense. He failed to see why the troops of PakArmy should fight and die while losing territory, with the PAF standing idly by. He opposed the agreement from the beginning on the additional grounds of its effects on

morale, and his attitude was undoubtedly an additional major factor in reshaping PAF policy towards increased Army support. He soon discovered that, 'PakArmy and the Air Force were thinking of defence problems in mutually exclusive terms, with little regard for true cooperation or feeling of interdependence'. But in setting out to improve this situation, it is clear that he was endorsing a policy for improved Army support which had already been embodied in the revised PAF war plans, which had been issued in June 1965, after the unofficial cease-fire.

This, however, failed to improve Indo-Pakistan relations. Immediately after the cease-fire, Pakistan planned a major operation for the liberation of Indian occupied Kashmir by infiltrating freedom fighters. This infiltration plan was based on assurance from the then Foreign Minister, Zulfikar Ali Bhutto, that a conflict arising out of a guerrilla war in Kashmir would remain confined to the disputed area and would not lead to a general war between India and Pakistan. AVM Nur Khan, however, was convinced that it would lead to an Indian attack across the international border, and immediately set about revising the PAF war plans for the impending conflict.

On assuming the command of the PAF, AVM Nur Khan had received no briefing on the proposed Army operations in Kashmir. On hearing rumours of pending troop movements, however, he immediately arranged to meet Gen Malik, the GOC in Kashmir, who had been entrusted with the conduct of the infiltration plan. The C-in-C flew to Rawalpindi in a Cessna T-37, and then on to Murree by army helicopter to reopen Air Force/Army liaison.

From discussions of the proposed infiltration plan by about 8,000 guerrillas and regular Army troops, it was obvious that little participation by the PAF had been envisaged. AVM Nur Khan immediately offered his Lockheed C-130 transports for re-supply roles, however, as



Left: Despite an absence of some six years from flying while running Pakistan International Airlines for the first time from 1959-1965, Nur Khan immediately converted to the F-86F and F-104A, via the T-33, on taking over as C-in-C of the PAF on 23 July 1965

Below left: Before converting to the F-104A, Air Vice Marshal Nur Khan did a brief familiarisation in one of the two two-seat F-104Bs, seen in the background, supplied to the PAF through MAP. He went on to score no less than 100% on air-to-ground gunnery in both marks of F-86, and later repeated this feat in one of the PAF's MiG-19s received from China after the 1965 war.



Above: In addition to leading from the cockpit, Nur Khan was determined to widen his military experience as far as possible, which resulted in him gaining his army paratroop wings after jumping from a Lockheed C-130 Hercules of the PAF. Here, his main and reserve parachutes are checked by army instructors before his first jump.

Left: Nur Khan receives his army paratroop wings at Air HQ, Peshawar. This typifies the close liaison which the PAF was to develop with the army under his leadership.





he realised that the task was beyond the capabilities of light Army aircraft and helicopters, that the General had in mind. On his return to Air HQ, the C-in-C ordered the Transport Squadron commander to undertake the necessary trials preparatory to performing this difficult operation in the mountains of Kashmir. Since detection of the re-supply flights by the Indians would have invited immediate counter action against PAF bases, the C-in-C also stipulated that these logistic support sorties would have to be undertaken under the cover of darkness.

Having acquainted himself with the Army's plans Nur Khan had to consider how the PAF could be made to play a more effective role in the impending conflict — which he warned Gen Musa he regarded as inevitable once the Pakistani guerrilla force crossed the cease-fire line in Kashmir.

The existing war plans of the PAF were based on the 1962 assessment of Indian war aims, on which the PAF had originally been relying, and listed possible IAF priorities as:

- a Rapid neutralisation of the PAF
- b Disruption of vital lines of communication
- c Destruction of Pakistani war-making potential.

Main IAF targets were accordingly assessed as:

- 1 Sargodha air base and its radar station at Sakesar
- 2 Mauripur air base, Karachi, and its radar station at Badin
- 3 Dacca air base, in East Pakistan, and its mobile radar unit
- 4 The civil airports at Karachi and Rawalpindi (Chaklala)
- 5 Industrial targets such as the port of Karachi, oil installations in the south, Wah ordnance factory,

Above: In preparation for the first airfield strikes in India, selected configuration for the PAF Sabre force allocated for this mission was with two underwing drop tanks and fixed-gun armament, which meant dispensing with the use of rockets. These Sabres at readiness under a threatening sky in West Pakistan epitomise PAF preparedness with the escalation of hostilities in September 1965.

Above right: On assuming command of the PAF, Nur Khan immediately offered the use of his small force of Lockheed Hercules tactical transports for the logistic support of PakArmy regular and irregular troops preparing to cross the cease-fire line in Kashmir. The C-130 pilots of No 6 Squadron had considerable experience of mountain operations from their normal winter re-supply missions to such places as Gilgit and Skardu. This Lockheed L-100-382B-4C was originally operated by PIA, but was subsequently leased to the PAF. It eventually crashed during operations in the Karakoram in 1968.

Attack oil facilities in Rawalpindi and bulk petrol storage in Peshawar.

Because of the disparity in its size compared with the IAF, the PAF could not afford to be taken by surprise, and the plan envisaged that it would have to be maintained at as high a state of operational readiness as resources would permit. It was also assumed that it would not have the initiative for a first strike, and that its primary task would be the air defence of Pakistan. AM Asghar Khan had maintained his insistence that no air effort would be available for army support, and the most that he could offer the troops could be to try and keep the IAF off their backs.

Apart from the allocation of a portion of the PAF F-86F Sabre force for immediate support of PakArmy, the War Readiness Plan, as modified by 29 June 1965, was not greatly changed from that of 1962. The committee appointed by AM Asghar Khan to revise the War Plan were given a number of possible political



contingencies to work on, but their findings were mainly based on the presumptions that hostilities would result from the long-standing dispute over Kashmir, and the main battle for Pakistan would thus be fought in the area of the former West Punjab; and that an all-out war with India was considered unlikely. There was little dispute that the main objective for the PAF would be to neutralise selected vital elements of the IAF by striking them on their airfields, thereby reducing the margin of numerical superiority held by India, ensuring the survival of the PAF and preventing the attainment of air superiority by India and of effective interference by the IAF in the land battle.

To review and recast the plans, Nur Khan constituted a committee of senior officers led by Grp Capt F. S. Hussain to consider and make recommendations on: 'How, while maintaining the security of the air bases, to gain local air superiority over the main Army area of operations with a view to influencing the land battle by providing the maximum support to the Pakistan Army while preventing the IAF from supporting the Indian Army.'

The main points that the committee had to consider and make recommendations on were:

- a Assuming the area between Kashmir and the Sutlej River as the most probable location of the main land battle, to plan to gain local air superiority
- b To recommend methods of neutralising the IAF's numerical superiority
- c To plan to effect the maximum economy of effort in defence of the air bases.
- d To plan for the availability of support to the Army in its main operational area
- e To plan for the maximum harassment of the enemy

without dissipating the effectiveness of the first line aircraft and personnel of the PAF

- f To recommend methods of surprising and deceiving the enemy
- g To ensure that the logistical plan adequately supported the operational plans.

The C-in-C and the operational planners of the PAF had three main problem areas in drawing up the plans to achieve their desired aims in a confrontation with the IAF. The first was the wide disparity between the strength of the PAF and the IAF, as discussed in Chapter 1.

The second problem facing the PAF in both its defensive and offensive plans was the complication of a severe shortage of front-line operational airfields. In the relatively narrow strip of West Pakistan, these comprised only Peshawar and Sargodha, in the north (the transport and training fields at Chaklala and Risalpur were not suitable for more than occasional use by combat jets), and Mauripur in the south. Only longer-range types such as the B-57s could make effective use of the rear airfield of Samungli, Quetta, and in East Pakistan, a single base was available at Dacca (Tezgaon). The lack of suitable bases prevented wide-scale dispersal of the PAF aircraft, with a corresponding simplification of the IAF's strike problems, and also denied Pakistan much of the flexibility essential for effective operation.

In contrast, the IAF had a wide choice of more than two dozen combat bases deployed in depth around the frontiers between West and East Pakistan, on which some 75% of Indian air power was located. More than 50% of these airfields offered a low-level strike threat to Pakistan, and the complex made up of Pathankot, Adampur and Halwara, under the control of Amritsar radar, formed the

base of a triangle whose apex centred on the vulnerable city of Lahore, just 16 miles from the frontier with India. This complex was therefore considered the primary target for the PAF in West Pakistan, although the strike plan had to extend to IAF bases and radar stations as far north as Srinagar, in Kashmir; Ambala, in Central India; and Jamnagar, in the south. From East Pakistan, the most vital strike target for the PAF was the IAF base at Kalaikunda, in West Bengal, although the area was ringed by other Indian airfields at Bagdogra, Barrackpore and Hasimara.

The third problem was that the whole of the PAF air defence and fighter guidance system depended on the Sakesar early warning and central radar in the north and a similar facility at Badin in the South. The PAF had no alternative or fall-back equipment available if these radars were damaged or destroyed.

After the deliberations of the committee AVM Nur Khan made the following decisions:

- a To concentrate the PAF in the area Sargodha/Peshawar, leaving one squadron for the air defence of Karachi
- b The air superiority battle to be fought as the defence of Sargodha air base thereby effecting the maximum economy of force; safeguarding the main base and Sakesar Radar; and dominating to a large extent the main battle area of the Army
- c To attack Indian air bases as soon as possible after the outbreak of hostilities and to destroy the maximum number of the IAF aircraft on the ground. This, it was hoped, would also induce the IAF to retaliate against Sargodha where the F-104 Starfighter and the Sidewinder-armed Sabre could be used in combination to destroy the attacking IAF aircraft
- d To attack the IAF bases with airborne commandos to destroy aircraft, aircrew and airfield facilities on the main IAF air bases on the night of D-day/D+1
- e To double the existing number of missions per aircraft per day to reduce the disparity in the relative strengths of the PAF and the IAF
- f To fly combat air patrols consisting of one F-104 Starfighter, armed with the Sidewinder air-to-air missile, and two F-86 Sabres, also armed with the Sidewinder. (This combination utilised the superior performance of the F-104 Starfighter to provide top cover to almost all the F-86 Sabres on combat air patrol with the ten available F-104s)
- g On hostilities becoming imminent, air defence measures to be fully operational to safeguard against pre-emptive or surprise attack
- h At least one squadron to be available for close support to the Army
- j Harassment of the enemy's air bases to be carried out by single bomber raids repeated a number of times every night to keep the enemy's air bases under constant air attack alerts
- k Training and other non-operational aircraft to be used, at night, to attack road and rail communications and troop concentrations, to harass the enemy's ground forces.

These decisions of AVM Nur Khan indicate that he sought primarily to cripple the IAF, if possible, on the

ground with every means available to him. If this did not prove practical, he then planned to fight in an area which was vital to the PAF and to the Pakistan Army and where he could concentrate his maximum strength. His concern for air support for the Army, which hitherto had not featured at all prominently in PAF planning, and his implementation of the means to provide such support revealed a deep understanding of the influence that air power has had on land combat since the Spanish Civil War.

With the operational concept and the vital decisions made, the operational staff officers proceeded to work out the details. Two vexing problems required careful consideration. One was the division of resources between the requirements of air defence, offensive air strikes and the support of the Army. The other was the question of the timing of the air strike on the IAF bases.

Given superiority in numbers, an airborne strike force can begin attacking enemy airfields at dawn and continue throughout the day to inflict the maximum possible damage. But the PAF assessed its numerical strength as insufficient to ensure that its initial strike would be massive enough to prevent immediate and effective retaliation. Dusk — or more accurately, 15 minutes before sunset — was therefore selected as the optimum time-over-target (TOT) for airfield strikes at the end of the first day of hostilities.

This would minimise the danger of an immediate counter-attack and enable harassing pressure by B-57s from Mauripur to be maintained during the night. It would also give the air defence system plenty of time to prepare to meet reprisal attacks on the following morning, and the strike force to be ready for follow up attacks planned for a TOT of 15 minutes before sunrise. Because sunset was much earlier in East Pakistan the strikes against Kalaikunda were planned for dawn on the following day, to avoid preceding those in West Pakistan and thus alerting the Indian defences.

From that point, further planning was a question of detail. Since the Sabre was then the only fighter-bomber in PAF service, the mission profiles had to be tailored to the characteristics of the F-86F. The PAF plan assumed 12 aircraft, allocated to each target, in three sections of four at five-minute intervals, using underwing rockets as well as the standard internal armament of six 0.5in machine-guns, for ground strafing. Further examination, however, indicated the necessity of carrying external fuel tanks to give an adequate combat allowance over the required ranges, and permit two attacks per aircraft, since the most forward PAF strike airfield of Sargodha was nearly 130 miles behind the frontier with India. This meant dispensing with the use of rockets, although in any case these weapons were considerably less accurate than the Sabre's machine-guns.

One final point to be decided was whether the strike force should cross the Indian frontier simultaneously on the way to their various targets, or aim for a common TOT (time-over-target). Since Indian defensive measures would almost certainly be initiated by the act of border penetration, the PAF plan decided in favour of the simultaneous frontier crossing and the acceptance of differing TOTs. This question of timing was to have significant effects on the events to come.

5. Prelude in Kashmir

Lying at the Western end of the mighty Himalayan chain, where the Karakoram mountains tower up to the 26,660ft peak of Nanga Parbat, the predominantly Muslim State of Jammu and Kashmir has been in dispute between India and Pakistan ever since the days of partition. Complete occupation of Kashmir, as part of the grand design for '*Akhand Bharat*', or a unified India, has been the long standing dream of the All-India Congress Committee, but even the present predominance over some two-thirds of the state has led to several major conflicts with Pakistan. When accused of fomenting trouble in Indian-occupied Kashmir, prior to the 1965 war, the President of Pakistan said: 'We are doing no more than what we have always pledged to do, which is to support the people of Kashmir in exercising their right to self-determination.'

In the absence of a plebiscite under the auspices of the UN — long hoped-for, but unlikely to be achieved — the discontent of the Muslim people of occupied Kashmir came to a head in August, 1965. Another contributory factor to the agitation in Kashmir had been the theft of a sacred relic — the holy hair of the prophet (Moo-e-Mubarak) — in 1963, coupled with resentment at Indian attempts to restrict free movement across the UN cease-fire line (CFL) established on 7 January 1949. Indian apprehensions concerning movement across the CFL from Azad (Pakistani) Kashmir were not without some justification. From 5 August onwards, a large number of *Mujahiddin* (fighters for the faith, or more usually referred to as freedom fighters in Pakistan) began infiltrating into the occupied areas and were soon organising brisk revolutionary and guerilla operations against Indian army posts, supply dumps, convoys and so on.

The freedom fighters were officered by regular Pakistani Army personnel, and the scale of their activities is indicated by the fact that, during the period of hostilities between 9 August and 16 September 1965, they

suffered losses of some 5,291 dead out of a total of 6,917 Pakistani fatalities among the regular and irregular armed forces throughout the entire 1965 war.

The PakArmy counter attack in Kashmir was planned for 1 September, in the Akhnoor sector, and the GOC was warned not to expect any close support strikes from the PAF except in extreme emergencies. PAF policy at that time was 'to involve the IAF sufficiently in air operations so that it could not effectively interfere with the ground forces'. But PakArmy had accepted the possibility that its troops might have to fight both the Indian army and the IAF at the same time.

In the meantime, however, Nur Khan was anxious to show that the PAF could make a more positive contribution to the military situation, and at the same time, improve liaison and cooperation with PakArmy. His opportunity arose following army requests for the provision of air supplies to the freedom fighters around the CFL in Kashmir. Because of the mountainous terrain, the Army was thinking in terms of helicopters or small aircraft to undertake these sorties. Nur Khan realised, however, that these would not be able to provide sufficiently large loads, and decided to commit the five precious Lockheed C-130Bs of No 6 Squadron, at Chaklala, to logistic support of the Mujahid force.

But there were several major difficulties accompanying this decision. Flying 75-ton aircraft under normal conditions down to within a couple of hundred feet of dropping zones surrounded by mountains towering up to more than 26,000ft is hazardous enough, what with weather, turbulence and terrain avoidance problems. With the added complications of enemy air and ground defences against these lumbering unarmed transports, if supplies were to be dropped across the CFL, the job clearly became out of the question by day — and to attempt such operations at night among some of the highest peaks in the world appeared equally impossible.



Above: The half-dozen Lockheed C-130B Hercules delivered to the PAF from about 1963 onwards through the US Mutual Aid Program to re-equip No 6 Squadron were pressed into service right at the beginning of the Kashmir campaign when Nur Khan offered their help in providing logistic support for the 'freedom fighters' of the Pakistan army.

This, at any rate, was the view of PakArmy, but impossible was not a popular word with the PAF C-in-C. As it happened, the officer commanding the C-130 wing at Rawalpindi, Wg Cdr (now Grp Capt) Zahid Butt, had spent much of his flying career weaving at about 10,000ft through the tortuous valleys of the Indus and other chasms in the inhospitable Karakoram in unpressurised Douglas C-47s and Bristol Freighters, and had been experimenting, of necessity and unofficially, with blind flying techniques in the mountains. This was made possible by using the APN-59B weather radar in the bulbous nose cone of the C-130B in its tactical mode. Although not primarily designed for ground mapping, this radar can be used to pick out mountain peaks and ridges, lakes, rivers and other natural features. To rely on electronic aids to let down blind into the middle of towering mountain peaks, however, was a new and revolutionary idea, which resulted on one of the most spine-chilling epics of flight yet recorded. Grp Capt Butt recalls:

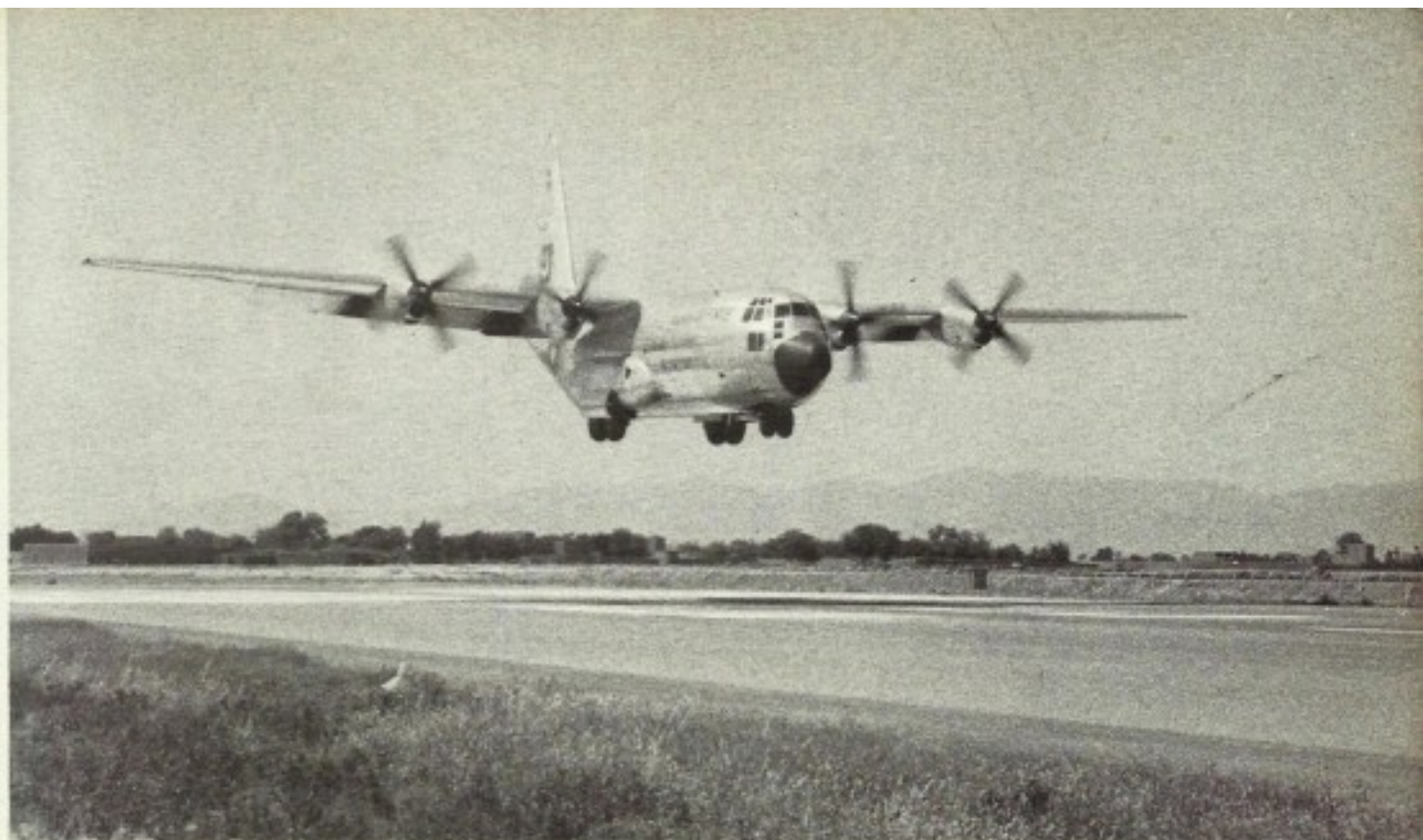
'I'd been experimenting on these lines on my own, without telling anybody and been ticked off sometimes, before Air Vice Marshal Nur Khan took over, for having done a few things which were not the normal way of flying transport aeroplanes. I had worked out that with a certain combination of weather radar and the Doppler navigational equipment in the C-130, you could literally track the aeroplane without any external references. I quietly practiced this with one of my navigators on every day supply dropping mission, flying down to within 200-

500ft above ground level on his steering instructions, interpreted from the radar and Doppler equipment.

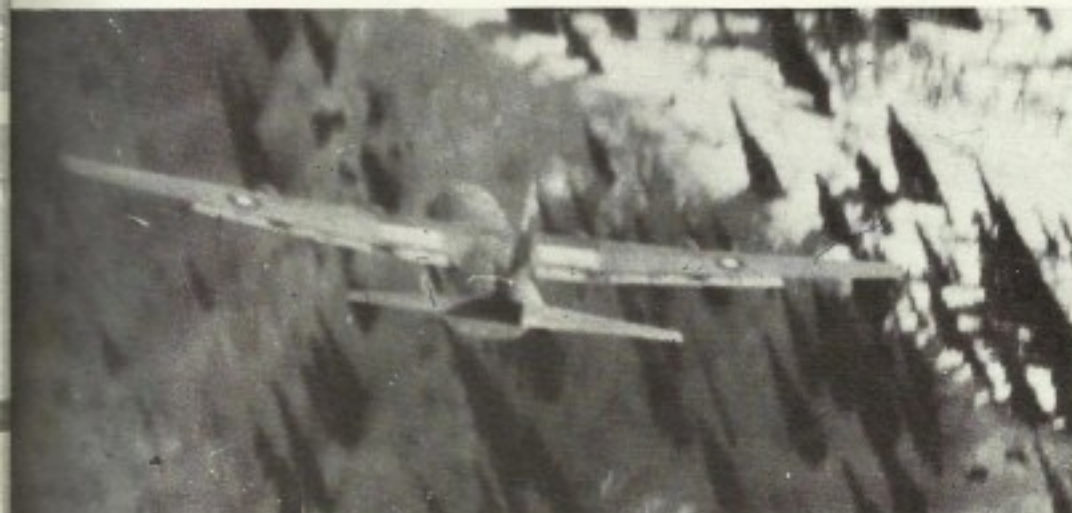
'One of the limitations of the radar is that it will topple if your angle of bank exceeds more than 45 degrees, which means that you lose your picture if your turn becomes too tight. But for training, I used to take off from Gilgit, at the far end of the Indus valley in Kashmir, and fly along on my navigator's instructions about 200ft above the watercourse, towards the foot of Nanga Parbat with my head down in the cockpit and the wing-tips just clearing the banks. Our normal dropping height is rather higher — about 1,000ft or so — but I wanted the crew to gain confidence in these techniques. We managed well enough, except that we still toppled the radar on occasions if the navigator's course corrections were too late and too large. We kept this to ourselves, however, and made no report at this stage to the air force.

'The next step was to repeat this practice at night, which I did with the authorisation of my station commander, Grp Capt (later Air Cdre) Eric Hall. After take-off, I used to shut down all aids except the radar, and head for northern Kashmir at about 20,000ft via Nanga Parbat, identifying various peaks on the radar en route. Our object was to let down blind into the Skardu Bowl, although we always planned on establishing visual contact with the ground before we began our dropping run. The civil aviation fellows at Skardu used to put the runway lights on for us, which we would use as our target for a simulated drop. We would then climb out and repeat the exercise.

'When I told the station commander that I was ready to demonstrate the feasibility of night dropping in the mountains he found it hard to believe, but he came up with me once or twice and saw for himself. Three or four of my best crews practiced similar techniques, and I was then able to hint to the C-in-C that if the need was urgent



Above: A C-130B Hercules comes in to land at a PAF airfield.



Centre left: One of No 6 Squadron's five C-130Bs in service in 1965 skims over the pine-clad slopes of the Karakoram with flaps and ramp extended for a winter supply drop.



Bottom left: A PAF pilot at the controls of his C-130 during a daylight supply mission in the Karakoram. On the centre-coaming is the screen for the C-130's APN-59B weather and mapping radar.

Above right: Pakistan army personnel load supplies with a fork-lift truck through the rear ramp of a Lockheed C-130B of No 6 Squadron. With slight modifications, this ramp proved equally adaptable to air-dropping up to 22,000lb of HE bombs at a time, conferring upon No 6 Squadron's Hercules for the first time, the unique role of heavy bombers against battlefield targets at night.



Right and below: Shortly after the 1965 war, No 6 Squadron was further reinforced by two Lockheed L-100-382B-4C civil freight versions of the Hercules, on lease from Pakistan International Airlines. Both are shown here, with their characteristic under-wing fuel tanks. The L-100 taking off from a mountain strip in the Karakoram was later lost in 1968, when it disintegrated in severe turbulence during an attempted supply mission.





enough, the night dropping of supplies might just be possible. I requested to be allowed to do the first operation, however, with a crew of my choice.

'With his encouragement, I took a high-altitude look at the area of the proposed clandestine drop in Indian-held Kashmir during the daytime, from a B-57, taking care not to cross the cease-fire line. I couldn't see much, however, because of cloud, although from about 50 miles away, the valley in which the DZ was situated seemed to be about three to four miles wide. We settled a date for the first drop to Qasim force — initially on 22 August, then changed to the following day, 23 August, my wife's birthday. The day before, the C-in-C said that he wanted to be picked up to attend the briefing. As soon as I heard that I knew what was in his mind.

'Sure enough, at the briefing, which I conducted, AVM Nur Khan announced his intention of accompanying us, which necessitated some change in plan. Originally, we had arranged to fly with civilian clothes beneath our flying overalls, and if we lost an engine or ran into trouble so that we couldn't climb out from the DZ, we had planned to try and join up with the Mujahids and fight our way out. But with the C-in-C on board, I cancelled the instructions about baling out in the event of trouble, and briefed the crew on the basis of attempting a low-level exit in an emergency over the lake towards Muzaffarabad. The crew were all armed as usual, but the Air Vice Marshal refused to take a revolver.'

This example of leadership from the cockpit on a mission into enemy territory has few parallels in air warfare, but is characteristic of the PAF C-in-C. His explanation is that he did not want the burden of such a decision left to his junior commanders. He felt that to make up his mind about the feasibility or otherwise of these operations necessitated personal observation. This also put him in a position to ensure that this critical operation was completed regardless of weather or other problems. The squadron commander reported:

'We took off from Chaklala, Rawalpindi, soon after 02.00hrs, with 28,000lb of guns, rations, ammunition and other supplies and, at my request, an ELINT B-57 flown

Above: The PAF received a further four Lockheed C-130Bs through the US aid programme in the late 1960s, including the example shown here, which were transferred from service with the Imperial Iranian Air Force. All served with No 6 Squadron.

by Sqn Ldr Iqbal was arranged to fly at 40,000ft to monitor the Indian radar, although I was quite convinced that the IAF had no capability to operate their fighters in that area. But we picked up indications of the Indian radar at Jammu being switched on as soon as we entered the area. The B-57 was also intended to act as a vital RT link in code with our own GCI, since we were out of direct VHF range with the ground stations because of the high terrain, all around. Finally, it was scheduled to report on weather conditions for a final go or no-go decision.

'As it happened, and despite reports to the contrary, the weather in the mountains was such that normally I wouldn't have taken-off during daylight for this sort of mission, but this was an emergency. Soon after take-off, we entered cloud at 12,000ft, emerging on top at about 26,000ft, and we did not see the ground again before the descent. Even Nanga Parbat was not visible, and the Shardi turning point had to be found and identified by dead reckoning plus interpretation of the radar picture. From Shardi, which is the entrance to the valley of Srinagar in Indian-held Kashmir, we were required to descend south-east from 26,000ft to 14,000ft within about two minutes, speeding up to 260 knots to let down at 5,000ft/min or so, depressurising in case of battle damage. The intention was to pick up the large Wular lake at Srinagar on radar, and then to come down below cloud for visual contact to reach the IP or set-course point of Bandipura. If I remember rightly, it was about 8.7 to 9 miles from Bandipura to the "Qasim" DZ on a track of about 170 degrees.

'We were still blind when we began our let-down, and I added one degree to the steering instructions passed on by my navigator, Flt Lt Rizwan, to stay well clear of the hills each side of track, extending up to 13,500ft. It was also important not to overshoot Bandipura at 14,000ft, since it



Above: As the mainstay of the PAF in the 1965 War, the F-86F Sabre was theoretically out-performed by the very much more powerful Hunter, particularly in tropical conditions. The older American aircraft, however, proved to have superior low-speed manoeuvre capability, especially at the low altitudes at which most air combat subsequently took place.

was backed by a mountain 16,000ft high. But we came out over the lake in thin cloud and haze, and, although it was pitch black, we got the vital visual pinpoint on Bandipura.

'From then on, our flying had to be extremely precise to ensure an accurate drop. One of the problems was that to avoid overshooting, we had only 43 seconds to reduce our speed from a tremendous 260 knots to the maximum for ramp opening of around 148 knots. From then onwards, no variation in speed was permissible if an accurate drop was to be made, but I was quite certain that we were not going to have a smooth ride. DZ altitude was about 12,000ft above sea level, but between the IP and the target, at the predetermined dropping height of 1,400ft above ground level, while staggering along with the ramp open and flaps down, we again ran into turbulent cloud and snow. Four or five miles to our left was the 16,000ft peak, and our only available clearance was over the ridges to the right down the Srinagar valley. Fortunately there was little wind, as it was snowing, and only two track corrections were needed during the run in.

'When only a minute or so short of the DZ, still at 148 knots, turbulence in the storm cloud, with accompanying lightning, was so severe that the aircraft's speed dropped down to below 100 knots and I couldn't maintain course





Left and above: Under the command of Sqd Ldr Afsar Khan Jadun, the four Grumman HU-16A Albatross amphibians of No 4 Squadron PAF flew a total of 14 round-the-clock missions totalling 72 hours in the maritime recce role in 1965, in cooperation with the Pakistan navy.

accurately enough to continue. I therefore announced my decision to abort this run, but the C-in-C immediately suggested we should make another try. I straightaway opened up to emergency power and told my crew to close the ramp and clean up the aircraft. With its heavy load, the aircraft climbed very sluggishly and when I told my navigator to re-establish contact with the lake he had to wait until we had cleared the surrounding mountains. We had to do more of a chandelle or a wing-over than a climbing turn since I couldn't go further without being bothered by one peak and there was a ridge on the other side hemming us in.'

It is difficult to exaggerate the true extent of the hazard confronting the C-130 crew in this situation. Staggering along just above the stall in the blackness of the snowstorm on a moonless night in a heavily loaded transport surrounded in close proximity by mountains towering 3,000ft or more above them the PAF personnel were dependent for their survival on a combination of flying skill and a tenuous radar picture. But their sole link with the ground was liable to vanish without warning should a gust cause the gyro limits of the radar to be

exceeded during the turns that had to be made to avoid the precipitous rocks. Wg Cdr Butt continues his narrative:

'We regained radar contact with the lake and identified Bandipura visually in position for another run. This time, I came down 200-300ft lower after reducing speed and opening the ramp, in an attempt to clear the cloud and turbulence, but I also told the navigator to prepare to drop blind, on timing and with the help of radar. We missed the turbulence on the second run, although we were again in cloud, and didn't see a thing until almost at the end of the nine-second time count for the drop. Just as the navigator counted down to "three, two, one, NOW", the clouds parted for a moment, and there in the blackness the C-in-C and my co-pilot saw the twinkling lights of three of the bonfires marking the DZ. They were directly underneath us, which meant we had delivered all our load successfully.'

It was later confirmed by 12 Division PakArmy that an accuracy of about half-a-mile had been achieved, which is remarkable for a blind drop. The arrival of food, supplies and ammunition put fresh heart into the Mujahid forces and their PakArmy officers in their skirmishes with Indian units. It was also evident that the C-in-C's presence on board the C-130 had been well justified since another supply dropping mission planned for the south that night had returned to base, as briefed, after encountering cloud. For his skill and courage, Wg Cdr Butt was awarded the Sitara-e-Jurat and his pioneering efforts in night dropping techniques resulted in subsequent completion of several similar clandestine operations, although in less narrow valleys.



The C-130s also continued their less dramatic support missions on the Pakistani side of the CFL throughout this turbulent period in Kashmir, and there is no indication that the Indians ever became aware of these hazardous night re-supply sorties throughout the entire conflict.

In retaliation for the guerilla raids, the Indian Army, reinforced to a total of six divisions, counter-attacked across the CFL from 6 August onwards, and in Pakistan it was claimed that the Indian XV Corps Commander had been given the objective of occupying the whole of Azad Kashmir. As it was, a certain amount of territory was taken over in the Titwal and Poonch sectors notably at Kargil and in the Uri bulge, opposite Srinager, including the strategically important Haji Pir pass. It soon became evident to Pakistan that a major military effort would be necessary if the loss of the rest of Kashmir was to be prevented, especially since the general uprising by the Muslim population in support of the Pakistani infiltrators, expected by Gen Musa, failed to materialise.

Following the earlier skirmishes in the Rann of Kutch, all the Pakistani forces were already at an advanced stage of readiness. PAF measures had included the recall of many skilled tradesmen who had returned to civilian life over the previous two years; the construction of dummy F-86s, F-104s and B-57s as ground decoys at Peshawar, Sargodha and the maintenance unit at Drigh Road, respectively; and the preparation, including the establishment of the necessary communications and signals facilities, of an alternative Air HQ at Rawalpindi to the normal Peshawar HQ.

Training units had not been closed down, although Risalpur received an operational commitment for 12 of its veteran North American T-6G trainers, which were to be camouflaged for use on the night harassment of enemy



Left and right: The remaining aircraft of No 4 Squadron, PAF, comprising 10 Sikorsky H-19 and Kaman HH-43B helicopters were also employed on considerably more belligerent roles than their normal Search and Rescue tasks in providing logistic support for PakArmy forward units, often in otherwise inaccessible mountain areas.

Below: Flown by instructors from the PAF Academy at Risalpur, PAF Harvard trainers armed with two 0.303in Browning machine-guns and fragmentation bombs or rockets maintained night harassment raids against forward Indian ground troops in the battle area throughout much of the 1965 war.



ground forces in the Amritsar-Ferozepur areas. All instructors and non-operational pilots had been kept current on first-line fighters and bombers through a few hours flying each month, but the PAF had no real reserves of either personnel or equipment.

In the War Readiness Plan, the AOC Air Defence had been allocated a minimum force of the single F-104A and three F-86F squadrons at Sargodha, plus a further four Sabres at Peshawar, specially equipped to launch a couple of GAR-8 Sidewinder air-to-air missiles from underwing racks. A portion of the F-86 force at Mauripur and Dacca was also assigned to air defence duties. The infra-red guided Sidewinder, which homes on to the heat emissions of its target's jet engine, is also the standard armament of the Starfighter for interception. Although subject to considerable limitations of release during anything more than a moderate rate turn, and when pointing towards the ground at low altitudes because of earth returns, the Sidewinder was to prove a weapon of considerable significance during the air combats in 1965.

Below: From initial procurement of 160 Hunter F56s and 22 T66 trainers delivered 1957-60, the IAF had about 118 in first-line service in 1965 in Nos 7, 17, 20 and 27 Squadrons. Attrition in 1965 and also in the 1971 war with Pakistan resulted in the subsequent IAF procurement of a further 100 Hunter F56s and 17 T66D/E trainers from refurbished ex-RAF and Dutch/Belgian aircraft. These Hunters are from the first batch received by India from 1957 onwards and are seen before delivery from Dunsfold.

Unfortunately, the PAF had only 22 of its 100 F-86F Sabres equipped to operate with Sidewinders by 1 September 1965. All were initially based at Sargodha, although detachments of four were sent to Peshawar and Mauripur after 6 September. There were not enough Sidewinder-equipped aircraft, in fact, to dispel a certain amount of despondency within the PAF at the absence of more modern successors to the Sabre. This was particularly apparent among the many PAF pilots who had gained considerable experience on Hunters while training with RAF in the UK and elsewhere. They were particularly appreciative of the Hunter's more recent origins compared with the Sabre, as well as of its useful margin of speed, climb, acceleration and fire-power.

But there were other PAF pilots, among whom Sqn Ldr Alam was one of the most adamant, who were quite confident that the Sabre remained a match for the Hunter or any similar fighter. And the PAF had the advantage of some 10 years of operational experience with the Sabre, on which many pilots had accumulated 1,000 flying hours or more. This degree of familiarity with their aircraft resulting from intensive training schedules, plus determined and inspired leadership and aggression in attack intensified by the universal realisation that the struggle was for a continued national existence, were to pay considerable dividends in the battles to come.

Initial implementation of the War Readiness Plan began on 18 August 1965, following events in Kashmir. Emergency measures included the establishment of a Tactical Operations Centre at Air Defence HQ, as well as





Left: At the outbreak of the 1965 war, the IAF had some 53 Canberra bombers and seven photographic versions in service from initial deliveries of 71 B(I)58s, eight PR57s and seven T4 trainers supplied direct from the manufacturers in the UK, from an order in 1957. To balance combat and crash losses in 1965 and 1971, the IAF subsequently took delivery of a further 10 Canberra B(I)66s, two PR7s and four T4 trainers from refurbished ex-RAF stocks.

Below: One of the IAF's initial batch of 22 Hunter T66 trainers seen at Dunsfold prior to delivery in 1957.



the day and night manning of the operations rooms at all PAF bases. All operational aircraft were deployed to their camouflaged and concealed wartime dispersals and, to ensure adequate warning of low-level attacks by the IAF, No 230 Radar Squadron and the Wireless Observer Wing were moved to their war locations.

In the second phase of the War Readiness Plan, begun on 29 August, flying training units were closed down, their instructors were posted to operational squadrons, and anti-aircraft and ground defences were mobilised at PAF bases and main potential targets. To remedy a general shortage of AA guns, a number of 20mm cannon in triple ground installations, which had previously been discarded after the Rann of Kutch crisis, were hastily

brought back into service. PAF preparations for war were completed by the evening of 31 August, when the new Air Operations HQ were manned and activated at Rawalpindi, to where the C-in-C, AVM Nur Khan, had transferred from Peshawar.

By then, the Pakistan forces in Kashmir were heavily outnumbered, and the Indian offensive towards the west in Tithwal sector remained unchecked. Indian aggression against Pakistan at this time also included the shelling of the village of Awan Sharif, across the international border near Sialkot, on 25 August. For Pakistan, the writing was clearly on the wall, and the escalation of army operations brought an increasing rush of air involvement. The PAF had been preparing for action since the days of Desert Hawk and when sanctioning the clandestine supply drops in Kashmir, the C-in-C had called for a full alert against possible IAF retaliation. Combat Air Patrols (CAPs) by PAF fighters were intensified, although maintained at the legally correct 30 miles from the frontier, leaving the IAF in little doubt regarding Pakistan preparedness. By the end of August, the implementation of the final stages of the War Readiness Plan had been completed, and the PAF was poised for whatever tasks it might be called upon to perform in the struggle with India.

Below: From total procurement of 78 Fairchild C-119G Packet twin-engined transports, the IAF converted 54 from about 1964 onwards with jet boost from HAL-built Orpheus dorsal-mounted auxiliary turbojets adding 4,700lb of thrust for improved take-off and high-altitude performance when required. The first of these was in IAF service at the start of the 1965 war.



6. Hostilities Without War

West Pakistan offers a wide range of topography, ranging from the desert area around Karachi in the south, through the fertile plains of the Punjab in the centre to the precipitous mountains of the western Himalayas in the extreme North. Much of the relatively narrow northern half of the country offers insufficient depth for effective defence, and several of the biggest and most vital towns such as Lahore, Sialkot and Rawalpindi are vulnerably located within a few miles of the Indian border. Capture of one of these towns, followed by an armoured drive to the west could effectively cut West Pakistan in half, and was one of several possible Indian options to be taken into consideration by PakArmy HQ.

Having been warned of the impending counter-attack across the CFL planned by PakArmy for 1 September in the Chhamb sector under Operation Grand Slam, to oppose increased Indian penetration of Azad Kashmir, AVM Nur Khan also gave considerable thought to the probable enemy reaction. Remarkable as it may now seem, the PakArmy offensive was organised on the assumption that air support would not be available from the PAF and without considering probable IAF retaliation. The PAF had previously maintained that it would have no capacity to spare from its primary roles of the air defence of Pakistan and counter-air action against the IAF to be able to prevent the enemy from interfering with the land battle. After taking over as C-in-C, AVM Nur Khan had assured the army that the PAF would give at least nominal close support to the Pakistan ground forces. It is evident, however, that PakArmy HQ was not counting on PAF participation in support of Grand Slam, for which inter-service liaison was somewhat lacking.

One of the main reasons for this lack of liaison appears to have been the fact that there was a general impression within both the Pakistan Government and Army that any conflict resulting from the Kashmir dispute could be localised. Air Force participation would have an escalating effect, but was thought unlikely while action

was confined to the area around the CFL. These were views which Nur Khan found very difficult to accept, although it seems that he was virtually alone among Pakistan's senior military and political officials in this respect. As late as 31 August, Nur Khan discovered that the Governor of West Pakistan was about to take some leave in the Murree Hills, having received no warning from the Government that the PakArmy counter-offensive of 1 September could lead to wide scale hostilities.

On the eve of the opening of Grand Slam, late on 31 August, at a meeting between PakArmy C-in-C, Gen Musa, and his PAF opposite number, with their respective staffs, AVM Nur Khan pointed out that this operation 'could mean war'. In anticipation of possible IAF reaction against the PakArmy offensive, which involved armour, heavy guns, etc, the Air Vice Marshal proposed a PAF strike against the nearest enemy airfields to precede the Pakistani thrust across the CFL into Indian-held Kashmir. While this was militarily the optimum approach, it presented certain political problems in conferring on Pakistan the possible role of an aggressor, and received a Presidential veto, after a discussion in person.

Personally convinced that a successful attack across the cease-fire line by Pakistan would mean an all out war with India, AVM Nur Khan took the necessary steps to prevent a successful surprise attack on his bases. Apart from outnumbering the PAF it had to be assumed that the IAF was an efficient, well organised and highly motivated force and given the opportunity would strike a surprise blow. With President Ayub's decision the initiative passed to the Indians to add to the advantages that they already had. In these circumstances Nur Khan was deeply concerned over the possibility of a sudden attack on his bases and the consequences of being drawn into battle on the IAF's terms rather than being allowed to follow his own plans.



Above: After the Hunter, most widely-used IAF combat type in the 1965 air war was the HAL-built Gnat, developed from the original British concept of a lightweight fighter. HAL eventually produced a total of 214 Gnat Mk 1s of the type illustrated here, and are continuing with construction of the uprated Mk 2 incorporating a wet wing for extra fuel stowage and other improvements. Gnat armament includes two 30mm cannon flanking the intakes for its Orpheus 701 turbojet, plus limited underwing stores in place of the external tanks carried by this example, which was surrendered to the PAF in air combat.

Right: After the PakArmy launched its offensive across the Cease Fire Line in Kashmir on 1 September, PAF C-in-C Nur Khan flew from Chaklala to the nearest airstrip to the Chhamb front at Gujrat in a Cessna T-37 trainer. He then made a personal reconnaissance of the battle area from a Cessna L-19 (0-1) of Pakistan Army Aviation.





By 31 August, when the third and final phase of the Pakistani plans for war preparations had been completed and all the operational units had been deployed to their combat bases, the PAF order of battle comprised 92 F-86F Sabres in service, plus eight undergoing repair and overhaul at maintenance units; 12 Lockheed Starfighters, of which two were F-104B two-seat trainers without guns; 25 Martin B-57s, including several fitted out for reconnaissance, and 12 Lockheed T-33 jet trainers adapted for ground attack and tactical reconnaissance. These 141 combat aircraft were deployed at only four widely scattered airfields.

As the most favoured PAF base in Western Pakistan, Sargodha, in the Punjab, then housed 30 Sabres from Nos 5, 11 and 15 Squadrons, comprising No 33 Wing. Among these aircraft were 22 equipped to carry Sidewinder missiles, although eight of this number were dispersed elsewhere after 4 September. Sargodha was also the permanent base for the Starfighters of No 9 Squadron, and for the five Lockheed RT-33A tactical recon aircraft of No 20 Squadron. After the outbreak of full-scale war on 6 September, Sargodha was to receive a further two Sabre squadrons from Mauripur for ground attack duties, and this overcrowded airfield had to bear the brunt of Indian air attacks from the complex of IAF bases facing it across the border.

Second to Sargodha in importance and activity, Peshawar, in the NW Frontier Province, faced possible operations at the end of August with a single squadron (No 19) of 14 Sabres, later increased to 20 with completion of overhauls at the PAF Maintenance Unit. Peshawar also received a detachment of four Martin

Above: Although the IAF had about 132 de Havilland and HAL-built Vampire jet fighters in first-line service in 1965, and used them in the opening engagement against PAF Sabres on 1 September over the Chhamb battle area, the loss of an entire formation of four in the ensuing air combat resulted in their immediate withdrawal, together with 56 Dassault Ouragans (Toofanis) from the IAF operational inventory. This single engagement thus resulted in the effective reduction of IAF combat strength by some 35%.

B-57s from Mauripur, and accommodated the two RB-57Bs and single RB-57F aircraft, with their complex ELINT equipment, of the highly specialised No 24 Squadron. The second RB-57F, or 'Droopy', by that time had been returned to the US (where it eventually stayed) for modification.

Mauripur, just outside Karachi, was the furthest removed from potential operations, but was reasonably well located for sorties by the Bomber Wing with its longer-range capabilities. No 31 Wing, comprising Nos 7 and 8 Squadrons, was equipped with 22 Martin B-57s, including the four detached to Peshawar. Of Mauripur's three permanent Sabre squadrons (Nos 16, 17 and 18) in No 32 Wing, with 36 aircraft on strength, only one was eventually retained, for air defence of Karachi. When hostilities started in earnest, Nos 17 and 18 Squadrons were detached to Sargodha, as already mentioned, to add their weight to the PAF ground attack effort. Mauripur also housed four or five Lockheed T-33A trainers of No 2 Squadron, which normally undertook jet conversion

duties, but were converted by the addition of a couple of 0.3in machine-guns for ground strafing lightly defended targets. Each PAF base also had a single T-33A of its own.

As the fourth operational base, Tezgaon, near Dacca, the capital of East Pakistan, was more than 1000 miles

away from the ground operations. Its single squadron (No 14) with 12 F-86F Sabres fought its own private war, however, with remarkable and dedicated distinction. Emergency landing facilities in West Pakistan were later provided at Lahore, Kohat, Risalwala, Hyderabad and Walton airfields, which did give the PAF some flexibility in the recovery of aircraft from long-range operations.

With jet and even piston-engined trainers pressed into a front-line role, the PAF exhibited a commitment to combat which was rendered absolutely total by the allocation of offensive roles to the humblest support aircraft in the current inventory. This was symptomatic of the country's will, which regarded the forthcoming

Below: On 2 September, 10 F-86Fs of No 17 Squadron were detached from Mauripur to Sargodha, followed on the next day by their sister unit from the same base, No 18 Squadron, to form a new strike element for ground attack duties in the northern sectors. Strike leader was Wg Cdr Masood A. Sikander (later Grp Capt) seen here in the cockpit of his F-86F-35-NA.



hostilities as a battle for national survival, and resulted in almost the entire PAF second-line force being pressed into first-line service.

The five Lockheed C-130s of No 6 Squadron at Chaklala, Rawalpindi, for example, which had already played a vital support role with their supply-dropping sorties in Kashmir, were to undertake even more dramatic and offensive tasks in future operations. As the remaining elements of No 35 Wing at Chaklala and Mauripur, the last four Bristol Freighters of No 12 Squadron were also pressed into service, while the four Grumman Albatross amphibians and 10 Sikorsky H-19 and Kaman H-43B helicopters of No 4 Squadron were employed on considerably more belligerent jobs than their normal humanitarian Search and Rescue roles.

Under the command of Sqn Ldr Afsar Khan Jadun, the Grumman HU-16s of No 4 Squadron flew a total of 14 round-the-clock missions totalling 72 hours in the maritime reconnaissance role, in cooperation with the Pakistan Navy during the two weeks of hostilities. An integrated Air/Sea Operations HQ was formed as part of Maritime HQ in Karachi, to ensure the provision of air support for the Pakistan Navy. Flying daily patrols of six to seven hours, the unarmed Grumman amphibians used their weather and search radar as well as visual means to detect surface vessels and submarine schnorkels. If enemy warships or submarines had been discovered, the Grummans would have called up a PAF strike force, but the Indian Navy stayed in port.

One of the biggest potential threats to Karachi and the vulnerable south of West Pakistan was the Indian carrier *Vikrant*, with its strike element of about 24 Sea Hawk fighter-bombers, plus half-dozen or so Breguet Alizé anti-submarine aircraft. Despite having started in September with only two operationally qualified pilots, No 4 Squadron managed to have at least one Albatross airborne at any one time, scouring the international waters of the Arabian Sea for the *Vikrant* or any other Indian ship. It seems that *Vikrant* may have been undergoing a refit, however, during the 1965 hostilities, in which it did not, in fact, participate.

The helicopters, and particularly the turbine-engined Kaman HH-43s, with their high-altitude capabilities, also branched out from their normal mercy roles. These slow and unarmed rotorcraft, flown by Flt Lts Ahmed and Yunus, undertook long and difficult missions over and into terrain more than 9,000ft above sea level in Azad Kashmir. Their main work consisted of moving artillery to places which would otherwise have been inaccessible to heavy guns, and also of supplying, between 3-8 September, about 31,000lb of ammunition to these weapons in the Tithwal sector. In their 76 sorties, and despite occasional mortar fire, three HH-43s also managed to include the evacuation of more than 100 casualties to base first-aid posts, and the supply of 4,000lb of rations and 1,000lb of signals equipment to troops in the Haji Pir pass area.

Finally the PAF order of battle was completed by a handful of North American T-6G trainers from the air force Academy at Risalpur. Flown by experienced instructors, these obsolescent trainers, armed with two 0.303in Browning machine-guns and a few fragmentation bombs, or four 60lb rockets were used for the night

harassment of Indian ground forces, especially on the Amritsar-Gurdaspur-Pathankot road. To its relatively puny weapons, the T-6G or Harvard as it is perhaps better known, added the shattering howl of its Wasp engine and direct-drive propeller, which at night and at low level, must have had a considerable psychological effect.

At any rate, the ancient 120-knot T-6s managed to bring all traffic to a halt on this road every night for two or three hours, and at least one train was blown up in addition to the vehicles strafed. These operations came to end by 16 September, when the moon reached its last phase and visibility became so bad that visual reconnaissance was impossible. Despite the vulnerability of these slow piston-engined trainers operating at tree-top height without any electronic aids, not one was lost in non-stop operations for most of the war.

Against Pakistan's total of 140 first-line jet aircraft, and about 30 heterogeneous converted trainers, transports and helicopters concentrated on a handful of bases, India at the end of August 1965 was estimated to be able to field at least 775 aircraft in the course of building up to a planned combat strength of some 45 squadrons. More than 500 of the IAF aircraft in 27 fighter and three bomber squadrons, each with 16 aircraft on establishment, were first-line jet-types, including the first 10 Mach 2 MiG-21s, 118 British-supplied Hunters, 80 Indian-built Gnats, 80 Dassault Mystères, 56 Dassault Ouragans, 132 obsolescent Vampires, 53 Canberra bombers and seven Canberra reconnaissance aircraft.

So in combat types, the PAF was outnumbered by nearly four to one, and if the IAF support element of 191 transport aircraft and 48 helicopters is included against the corresponding total for Pakistan, the ratio becomes nearer five to one.

It is ironic that both India and Pakistan used different versions of the Canberra as their main long-range strike equipment, although the IAF had more than twice as many available. Although the rest of the IAF jet equipment, apart from the Gnat light fighters, was not particularly modern, it gave India the luxury of being able to afford attrition to fight a lengthy campaign, whereas Pakistan had no such option.

Likewise with military air bases; against a maximum of eight in both East and West Pakistan, only a few of which were within fighter range of Indian targets, the IAF had a couple of dozen well-equipped airfields around the border areas, nearly all with strike capability. In August, the IAF had almost 75% of its entire strength deployed facing West Pakistan in the vital northern sector, at such bases as Ambala, Chandigarh, Halwara, Pathankot, Adampur and Srinagar, apart from additional deployment in the south at Jamnagar, Jodhpur and further back at Poona. Because of Pakistan's lack of depth, its own bases were always vulnerable to surprise attack by IAF aircraft making a low-level approach.

Pakistan had no low-looking radar for either accurate fighter guidance or enemy detection, and its height finding equipment had only limited capability. Compared with only two main FPS-20 azimuth and FPS-6 height-finding early-warning and GCI radars operated at Sakesar and Badin in the north and south of west Pakistan, plus the older Type 14 and a few mobile radar sets in East

Right: The IAF had received only 10 or so early versions of the MiG-21 from the Soviet Union before the 1965 war, but these were based at one of the most forward Indian airfields near the Pakistan border when hostilities began. They appeared to play only a limited part in the conflict, however.

Below: India received its first 6-8 V750VK 'Guideline' SAMs from the Soviet Union at the same time as its initial batch of MiG-21s before the 1965 war, and these formidable Russian missiles were deployed around several of the key IAF air bases in the Delhi area.



Pakistan and elsewhere, India had available five early warning units, five mobile GCIs and no fewer than 14 bomber guidance units. Of the early-warning GCI radars the most important were the two high-powered three-dimensional P.35 installations of Soviet origin at Ambala and Amritsar, which were to prove troublesome to the PAF in the days to come.

Yet another advantage available to India was the possession of Soviet V750VK Guideline surface-to-air missiles. The first six to eight of these had been received at the same time as the initial batch of MiG-21 interceptors, in February 1963, as part of an improved air defence system for the New Delhi area, and they were also installed around several of the key airfields in that locality, including Ambala and Chandigarh. Although these represented a real threat only to high-altitude aircraft, the Soviet SAMs had the secondary effect of forcing aircraft attacking targets in their vicinity down to within range of the highly lethal light AA fire. There is no recorded instance of any PAF aircraft being lost to Indian SAMs during the 1965 conflict.

Against this preponderance of Indian air power, the PAF could offer only inspired leadership throughout all its echelons, an iron determination from the realisation that nothing less than national survival was at stake, and a solid background of intensive training and experience. From the technical point of view it had perhaps only one trump card to play against the IAF, in the form of the Sidewinder air-to-air missile. Less than 25% of the Sabre force was equipped to carry Sidewinder, but in combat the IAF would have to assume that every F-86F was so equipped, and it had no AAMs in service of its own.

The addition of Sidewinders to the air combat equation meant that the IAF Hunters could no longer make unrestricted use of their superior performance to disengage from the PAF Sabres at will. And on the Mach 2 F-104s, the Sidewinder gave Pakistan a weapon system of tremendous potential, plus a corresponding degree of respect from the enemy for the Starfighter, acknowledged by the latter's nickname of 'Badmash' or 'Scoundrel', conferred by the IAF. India's own Mach 2 MiG-21s were armed with the Soviet equivalent of Sidewinder, the so-called K-13 or 'Atoll' AAM, derived directly from the American weapon, but neither the MiG nor its missile took much of an active part in the 1965 operations.

So much for the line-up of the opposing forces on the eve of Operation Grand Slam. When this was launched across the CFL in the Chhamb sector of Kashmir, towards Jaurian and Akhnoor, at first light on 1 September by 12 Division PakArmy under Maj-Gen Malik, the PAF maintained continuous combat air patrols (CAPs) throughout the day over the Sialkot area. Most CAPs comprised pairs of F-86s, supported by single F-104A Starfighters, keeping about 10 miles away from the border to avoid provocation, but ready to deal immediately with any attempt at IAF intervention in the land battle. Even at this stage, the PAF C-in-C issued a directive that no border infringements were to be made although the earlier 30-mile rule was naturally relaxed.

All PAF stations had been alerted against possible IAF attack, so that most of the initial effort in Pakistan was directed towards air defence. About 40% of the PAF fighter force, in fact, was initially kept available for this

purpose, under the AOC Air Defence, Air Cdre Masroor Hussain, at the relocated Air HQ, Rawalpindi, from where the remaining Sabres were directing by the Assistant Chief of Air Staff (Operations), Air Cdre Rahim Khan. Both were responsible directly to the C-in-C, who in turn was in close touch with President Ayub Khan and Army GHQ in Rawalpindi.

At Air HQ on 1 September, there was general anticipation of IAF action against PakArmy forces in Kashmir, once these had advanced more than about 10-15 miles across the CFL. This was achieved by early afternoon, when optimistic reports concerning PakArmy progress continued to come in, but as there had been no assessments from personal observation by senior military personnel, AVM Nur Khan once again decided to see for himself what was happening in the Chhamb sector. Jumping into a Cessna T-37 jet trainer at Chaklala, he flew up to the nearest small airfield to the front at Gujrat, and from there was flown at only 3-400ft across the flame and smoke of the battle line around the Tawi River by an Army pilot in a little Cessna O-1 observation lightplane. He also landed at a strip at 1 Corps HQ to obtain the latest situation report, and at the same time (16.30hrs) rang up to warn Theatre that the 'tremendous' mass of PakArmy troops, tanks, guns and vehicles strung out along a narrow track provided a vulnerable target which no enemy air force could continue to ignore.

This was rare prescience indeed, since no sooner had the CAPs been extended at the C-in-C's instigation from their original deadline of 17.00hrs, and another section of two Sabres scrambled, than the first IAF aircraft appeared over the Chhamb battle area. Their appearance appears to have resulted from a code call by the harassed Indian Army commander in Chhamb to his HQ for 'a bottle of whiskey'. This duly arrived at 17.20hrs in the form of a Canberra, two Vampires and three UKJ (unknown jets), which were reported by the PAF observer network and began attacking the Pakistani forces across the CFL inside Kashmir.

In response to urgent appeals from PakArmy, who at one stage reported (erroneously) that more than 20 IAF aircraft were overhead, the section of two Sabres whose patrol had been extended were vectored on to the scene by the SOC controller, Grp Capt M. Z. Butt. From their patrol height of around 20,000ft, the two Sabres, flown by Sqn Ldr Sarfaraz Rafiqui, CO of No 5 Squadron, with Flt Lt Imtiaz Bhatti of No 15 Squadron as his No 2, made contact with the enemy despite poor visibility just before sunset at about 8,000ft, when two Vampires were spotted immediately below them.

While Rafiqui was closing in behind the Vampires, his No 2 spotted a couple of Canberras at about 6,000ft heading towards the west, and then another two Vampires turning in on the Sabres. Even as Flt Lt Bhatti warned his CO to break left and racked his Sabre round to intercept the second pair of Indian fighters, Sqn Ldr Rafiqui destroyed the first Vampire in flames with a quick burst from his 0.5in Brownings. He delayed his break until he had shot down the second Vampire, and only then turned to assist his No 2. By this time, the engagement, as quickly became customary, had descended almost to tree-top level, and as Rafiqui informed Bhatti that his tail was clear, his No 2 shot

down both Vampires in rapid succession. After Flt Lt Bhatti had fired a short burst at the second Vampire, which started smoking, he shifted his gunsight on to the lead aircraft. When he squeezed the trigger, he appeared to kill the IAF pilot, since the Vampire immediately nosed over into the ground.

In the course of combat, contact with the PAF ground controller had been lost through the descent to low level, but as he regained altitude Sqn Ldr Rafiqui checked in with Grp Capt Butt and said, 'Did you mean us to shoot to kill or to frighten?'

'To kill', said the GCI controller, 'and you've done it.' And Sqn Ldr Rafiqui replied, 'Yes'. Positive identification was made of the remains of three of the Indian pilots in this action, Flt Lts A. K. Bhagwagar, M. V. Joshi and S. Bhardwaj, and the loss of the four Vampires was admitted by the Indian Prime Minister on the following day. Fourteen PakArmy tanks were claimed destroyed or damaged by the IAF, plus 30-40 heavy vehicles.

As the PAF C-in-C stepped out of his Cessna T-37 at Sargodha after returning from his visit to the battle front, he was met with the news of the first air engagement, and the decisive initial victory achieved over the IAF. He was also able to congratulate in person the two PAF officers responsible for drawing first blood. This overwhelming victory had several profound effects on the military situation. In the first place, it was a tremendous morale booster not only for the heavily outnumbered PAF, but also for the PakArmy forces, who had a close-up of the prompt despatch of their tormentors. It also marked the beginning of the establishment of local air superiority which was subsequently maintained throughout by the PAF. As Brig Amjad Chowdry, the artillery commander of No 4 Corps wrote in a letter to the C-in-C: 'Your very first action in Chhamb left no doubt in our mind that we did not have to worry much about the enemy air. The pattern was set there and then. We will never forget that spectacle — it lifted our spirits and gave us a flying start.'

Casualties and damage inflicted on the PakArmy forces by the IAF at first reported to be heavy, caused some concern within the PAF, but were eventually resolved to total one man and one gun. Another attack about 20 minutes later by four IAF aircraft thought to be Hunters caused minor damage, but visibility was too poor for contact to be made by PAF fighters.

On 2 September, however, when PakArmy forces under the GOC 7 Division, Maj-Gen Akhtar Malik (to be replaced on the following day by Maj-Gen Yahya Khan, later President of Pakistan) having captured Chhamb, crossed the narrow width of the Tawi River and established a bridgehead on its eastern bank, surprisingly there was no interference from enemy air forces. In fact there were no recorded IAF operations of any kind on 2 September. Nor did the initiation of the PAF's new close support role from first light on the morning of 2 September result in any IAF reaction. First off at 05.30hrs from Sargodha were four F-86Fs, each with 28 2.75in rockets as well as their six 0.5in machine-guns, led by Sqn Ldr Alam, CO of No 11 Squadron. Skimming low over the dawn mists, the Sabres made their way towards the main Indian defence point after Chhamb, at Jaurian, which they were committed to soften up. They were followed five minutes later by a second section of

three Sabres, one having dropped out at the last minute because of unserviceability.

Near Jaurian, Alam's section launched their rockets against a suspected Indian troop and vehicle concentration, which subsequent reconnaissance by an escorted RT-33 revealed to include a rest house used as an Indian Army formation HQ. The second section of Sabres, led by Flt Lt Yusaf Khan, after orbiting for a while at 4,000ft, found a long convoy of vehicles, including a dozen or so medium tanks, in the vicinity of Jaurian, coming from the Akhnoor direction and were subsequently reinforced in their attacks by Sqn Ldr Alam and his aircraft. Despite occasional AA fire, the PAF Sabres stayed over both targets for up to 30 minutes at a time, and claimed four tanks and about 20 vehicles destroyed or damaged without loss to themselves. 'We came back', recalls Flt Lt Yusaf Khan, 'with empty guns and near empty fuel tanks.'

Throughout the day, CAPs by pairs of Sabres and single F-104s were flown about 10 miles inside Pakistani territory in the Jhelum-Muzaffarabad area at around 25-30,000ft. No contact was made, however, with the IAF in the course of the 18 F-86 and six Starfighter sorties. But Pakistan air power made a minor mark that day when Lt-Col Babar of the army aviation organisation accompanied by Capt Akbar in an unarmed Bell 47G helicopter, were responsible for the capture of 53 Indian troops of the 6 Sikh Light Infantry. These they discovered retreating with their command vehicles from Maira, and rounded them up after landing nearby.

To meet the anticipated increase in ground attack commitments in the northern sectors, 10 Sabres of No 17 Squadron, led by Sqn Ldr Wiqar Azim were detached from Mauripur to Sargodha on 2 September. They were followed the next morning by the CO of their sister unit from Mauripur, No 18 Squadron, Sqn Ldr A. U. (Butch) Ahmed, plus Sqn Ldr S. M. Rabb as Wing Ops Officer, to form a new strike element operating from Sargodha, under the command of Wg Cdr Masood A. Sikandar. Sargodha was thus to house six full fighter squadrons in addition to one or two smaller units, but despite this drastic overcrowding, its operational efficiency was to prove unimpaired in the critical days to come.

One of the results of the air combat on 1 September, though not known to the PAF at that time, was the decision of the Indian Air Force C-in-C, to withdraw the Vampires and Ouragans from his combat strength of aircraft as outmoded and outmatched by the Sabres of the PAF. This reduced the Indian front-line strength of aircraft by 128 Vampires and 56 Dassault Ouragans and the overall inventory by about 35%.

Still to be answered was the effectiveness of the PAF's main force of Sabres against more representative opposition such as the Hunters and Gnats of the IAF. It was obvious, however, that with the continued advance of PakArmy forces into Indian-held Kashmir, there would soon be further engagements to establish this point once and for all. Further air combat became additionally inevitable with the C-in-C's decision, after his return from the battle front and the initial appearance of the IAF, to meet army requests for essential close support sorties by laying on as much ground attack effort as the PAF could spare, provided this remained restricted to the battle area.

7. These were the Enemy





Overleaf and above: After the destruction in air combat of four IAF Vampires on 1 September — the first day of hostilities between India and Pakistan — these obsolete fighters were withdrawn from further first-line service. More than 130 Vampires were estimated to be in the IAF inventory at that time.

Right: About 80 HAL-built Gnat lightweight fighters featured in the IAF order of battle, according to PAF estimates, at the start of the 1965 war, and therefore comprised about a quarter of India's complement of effective combat aircraft. An unusual feature of the Gnat is the use of partial undercarriage extension to act as air brakes.



Far right, top: The Dassault Mystère IVA, of which the IAF had about 80 in service in 1965, from original procurement in the later 1950s of 110, was similar in concept to the F-86 and the Hunter, but less effective in combat. Its main disadvantage was its somewhat dated centrifugal-flow Hispano-Suiza Verdon turbojet, although this was considerably more powerful than the Sabre's GE J47.

Far right, bottom: In addition to the An-12s, the USSR supplied 26 Ilyushin Il-14 piston-engined transports to the IAF in the early 1960s, to supplement the evergreen Douglas C-47s of that service. The Il-14s remained in Indian service until the mid-1970s, but the IAF retained a substantial number of C-47s for many years thereafter.





Below: The IAF received a total of 34 Antonov An-12 turboprop transports in the early 1960s as part of the Soviet military procurement package, mainly for Himalayan airlift support, and the remainder of

these after the usual accident attrition are expected to continue operating with two Indian squadrons well into the 1980s.



8. Alarms & Excursions

There was still no formal state of war between Pakistan and India, nor had ground operations spread beyond the vicinity of the CFL in Kashmir, when PakArmy forces resumed their thrust towards Akhnoor, the gateway to Srinagar via Jaurian, on 3 September 1965. PAF air operations started at 05.30hrs with a dawn take-off by two Sabres and an F-104 from Sargodha for an armed reconnaissance over Akhnoor. The other main bases of Mauripur and Peshawar had also been alerted before first light following a request, from 7 Div PakArmy, for air cover to protect further crossings by its vehicles of the Tawi River.

One of the main jobs for the Peshawar patrol was to keep an eye on the IAF at Srinagar, which was the base most likely to be used to mount a low-level strike against their own airfield. Only one Canberra and a single transport aircraft were observed on this occasion, however, although the Peshawar patrol also reported 10-12 Indian tanks at Baramullah.

Another CAP scrambled from Sargodha about an hour or so after the first included two Sidewinder-armed Sabres flown by Flt Lt (later Sqn Ldr) Yusaf Ali Khan, with Flg Off Butt as his No 2, accompanied by the usual F-104, to patrol Chhamb. After they had been flying over their designated area for some time, the Sabres were warned by the Sakesar GCI of the proximity of four UKJs (unknown jets) at 36,000ft, and promptly requested a vector to intercept despite being outnumbered by two to one. No contact was made with these bogies, but four IAF Gnats were seen climbing towards the Sabres from the opposite direction. Flt Lt Yusaf Khan recalls:

'I called over the RT to my No 2 to punch tanks* and pulled my Sabre in a climbing turn to close with the Gnats. One of my wing man's tanks hung up, however, and as he tried to sort out his problem in the cockpit, he

lost contact with me so I told him to exit. Meanwhile, I was getting missile tone, which indicated that the Sidewinder was locked on to a target, but just as I was about to launch my GAR-8, I felt a series of thuds on my aircraft. Looking back, I saw two Gnats behind me, and as one overshot, I broke hard into him and he turned away.'

Flt Lt Khan's Sabre was not responding properly to the controls, which was hardly surprising since his tail unit had been hit by three 30mm high-explosive cannon shells from one of the Gnats. Nevertheless, he continued the engagement descending to 1,500ft or less above the ground in the process, and claimed that he could still out-turn the Gnat, despite the severe damage suffered by his Sabre. Fortunately for him, help was on hand. While his No 2 was in the process of rejoining him in his single-handed combat with six Gnats, the first four having been reinforced by two more, Flt Lt Khan saw the Starfighter flown by Flg Off Abbas, who had been the third member of his CAP, dive supersonically from 35,000ft through the milling mass of aircraft. The F-104A had been vectored on to the engagement by Sakesar after a futile pursuit of another hostile track, and its appearance in the course of several high-speed passes was enough to cause two or three of the Gnats to break off. The remaining Gnat continued dog-fighting with the two Sabres until almost sandwiched between them, when it dived to ground level and escaped. Undaunted to the end, Flt Lt Khan attempted to dive after his adversary, but found that he was unable to reach more than about 350 knots, and that at anything more than about 92% engine rpm vibration became excessive. All he then had to do was to nurse his crippled aircraft more than 100 miles back to base, with marginal fuel and having lost his radio and emergency IFF (Identification, Friend or Foe) equipment. He sent his No 2 on ahead and eventually returned to Sargodha where he found that his left mainwheel was not

*Jettison the long-range fuel tanks carried beneath the wings, which restrict manoeuvrability in combat.

Right: In one of the first air combats between the IAF and the PAF on 3 September 1965, the F-86F Sabre flown by Flt Lt Yusuf Ali Khan was hit by three 30mm HE shells from a dogfighting Gnat. Despite severe damage to the port elevator, rear fuselage and wing, the PAF Sabre landed back at Sargodha for eventual repair.



indicating down and locked, and that he had no brake pressure. Flt Lt Khan continues:

'I made a pass over the field and waggled my wings to indicate a precautionary landing. As I had no brakes, I ran into the airfield crash barrier at the end of the runway, but there was no further damage. There was already enough, however. Most of the upper parts of the fin and rudder were damaged, as was the left elevator. Another shell had entered the fuselage behind the air brakes and passed completely through leaving an 8in diameter hole just aft of the engine turbine rotor.'

One of the most extraordinary hits on Flt Lt Khan's Sabre was the passage of a 30mm shell right up the tailpipe of one of his Sidewinder missiles, passing through the rocket motor and finally exploding about half-way along the 9ft 2in length of the GAR-8. The front portion of the missile, containing the warhead and sensitive infra-red homing equipment, was blown off (and recovered later) but the explosion of the 30mm shell put several thousand splinters through the wing, and accounted for the failure of the undercarriage hydraulic system.

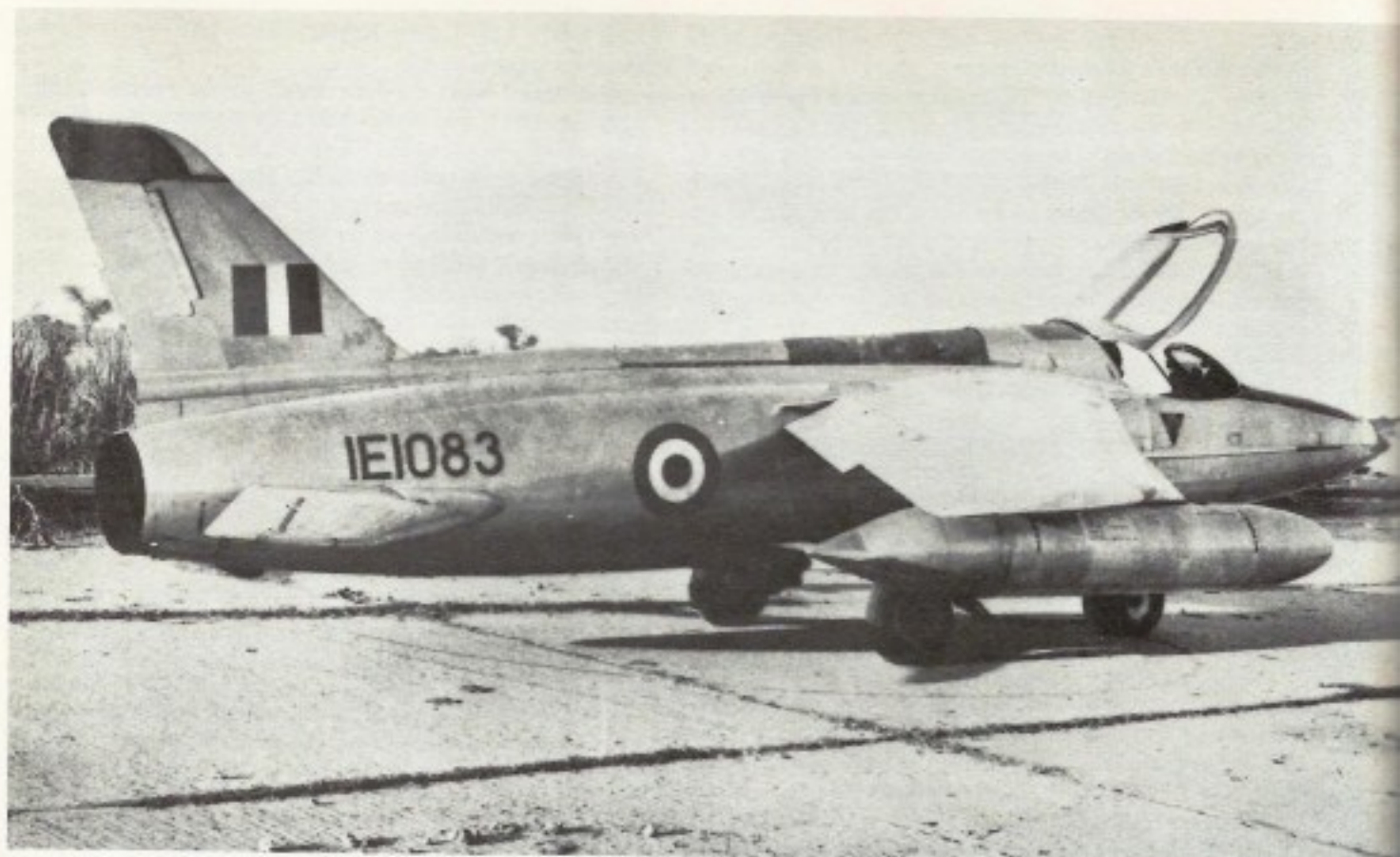
Despite its severe damage, this Sabre was repaired and returned to operational service by the indefatigable industry of the PAF engineers at Sargodha, led by Sqn Ldr M. Wahidullah, in charge of the Repair and Salvage Unit, and Sqn Ldr I. A. Kazi, commanding the Aircraft Engineering Squadron. In conjunction with Flt Lt Khan, the PAF maintenance personnel confounded the claim by All-India Radio of the destruction of a PAF Sabre, for

which Sqn Ldr Trevor Keelor of the IAF was awarded the Vir Chakra.

But there was an even more ironic sequel to this combat, which was professed to have boosted the morale of the IAF. Another F-104, flown by Flt Lt Hakimullah, which had been vectored to the scene of the fighting by Sakesar, but had arrived just too late, came across one of the Gnats returning to its base after the engagement. Hakimullah's Starfighter had been flying at Mach 1.4 for the interception, and he had asked Sakesar to let him know when he was within about five miles of the combat area, in order to have sufficient time to decelerate. It was just about then that he came across the IAF Gnat, whose pilot thought he had escaped one F-104, only to be confronted by another.

Below left and below: The reputation of the Mach 2 Lockheed F-104A Starfighters of No 9 Squadron, seen here lined up and armed with their wing-tip Sidewinder air-to-air missiles and landing after an interception at Sargodha, resulted in them being referred to as 'Badmash' or 'Scoundrels' by the IAF. So strong was this reputation that an IAF Gnat squadron commander surrendered without a shot being fired when confronted by a PAF F-104A flown by Flt Lt Hakimullah on 3 September 1965, and hurriedly landed at a forward airfield in Pakistan.





Left: The surrendered IAF Gnat photographed at Pasrur, shortly after its ignominious landing. It is still preserved in the PAF Museum at Peshawar. Alongside a PAF Sabre, its diminutive size becomes more apparent, and proved a useful asset in combat, when it was difficult to hit.

Right: Sqn Ldr Saeed Hatmi, SJ of the PAF was bet three bottles of beer by the IAF Gnat pilot that he would not be able to start the surrendered aircraft, let alone fly it out from Pasrur to Sargodha. The IAF squadron commander lost his bet, but from a Pakistani prisoners-of-war camp was in no position to pay.

As the Gnat was then flying at about 5-6,000ft over the disused PAF airfield of Pasrur, not far from the Indian border south of Sialkot, its pilot promptly lowered his undercarriage in surrender, and landed the aircraft intact, with the assistance of its tail parachute. Flt Lt Hakimullah continued circling overhead for some 20 minutes or so, until the Gnat and its pilot were captured by Pakistani troops. After interrogation, it was established that the pilot, Sqn Ldr Brij Pal Singh Sikand, who was CO of an IAF Gnat squadron, had taken off from Halwara, where he had arrived only the previous evening from Ambala. After refuelling at Pathankot, his formation of six Gnats were assigned that morning to provide close support for Indian Army troops in the Bhimber area.

This, of course, had been frustrated by the determined action of the outnumbered PAF pilots, after which the IAF Gnat pilot claimed that he had lost his radio and compass, and that his two 30mm cannon had jammed. The Indian prisoner, who was dismissed from the IAF while in captivity, also bet the PAF pilot assigned to fly the Gnat away from Pasrur three bottles of beer that he would not be able to start the aircraft, let alone get it airborne. What the Indian pilot did not know, however, was that Sqn Ldr S. A. Hatmi of the PAF had flown Gnat Trainers extensively with the RAF, and the differences from the HAL-built fighter version were sufficiently minor to present him few problems.

When the Gnat flew into Sargodha three days after landing at Pasrur, with an escort of six Sabres, it was greeted with acclamation, and its few secrets were soon laid bare, although a tactical evaluation was not possible until after the end of hostilities. It was recognised as an effective little aircraft, although with limited range and an inferior turning circle to the Sabre. As for its much-boosted reputation as 'Sabre-Slayer', it seems that in this respect, the Indians appear to have been victims of their own propaganda. Certainly the Gnat was regarded by the PAF with less respect than the Hunter. Nor is the PAF convinced that it lost more than one or two Sabres to Gnats, throughout the entire period of hostilities with India. Meanwhile Gnat No IE 1083 is still hangared at Sargodha as a treasured memento to the PAF's moral superiority over the IAF. And when its guns were tested immediately after its capture, they worked perfectly...

When this eventful day (3 September) ended, the PAF had flown 24 CAP missions, comprising 19 from Sargodha and five from Peshawar, with no further contact despite several attempts at intervention over the battle area by the IAF. Although the Indians had avoided



further combat, the C-in-C felt that a reassessment of PAF fighter tactics was desirable after these initial experiences, and therefore went with some of his senior staff officers from Air HQ to Sargodha that evening for a conference. After a discussion with the station commander, Grp Capt (now Air Cdre) M. Zafar Masud and some of the more experienced squadron pilots, the C-in-C decided that, in future, CAPSs would be doubled in strength to meet the challenge of larger IAF formations. Furthermore, it was planned that while the four Sabres of a CAP flew at around 25-30,000ft, where they would be picked up by the enemy, the two accompanying F-104s taking off 10 minutes later, would stay at low level to avoid detection by Indian radar, ready to zoom up whenever combat was joined.

In practice, these tactics were to prove less than completely successful, but they did go some way towards meeting the PAF requirement to seek combat with the numerical odds a little more favourable than before. The theory was that the F-86s should withdraw after the IAF was committed to combat, leaving the field clear for the F-104s. CAPs to this pattern began on 4 September, when the PakArmy push into Indian-held Kashmir had reached the outskirts of Jaurian, but the only thing missing to test the theory was IAF cooperation in accepting combat. In effect, the F-86s acted as bait to entice the IAF into engagement, but at this stage there was virtually no reaction from the 150 or so aircraft based at the three forward airfields in the northern sector, just behind the Indian border. Nor, at this time, were PAF fighter pilots permitted to pursue intruding IAF aircraft back across the international border into Indian territory.

One of the advantages of this period of phoney war to the PAF was that it provided a breathing space to sort out a command structure capable of coping with the pressure of the revised operational requirements. There was some division of responsibility between the HQ staff at Rawalpindi, and those remaining at Air HQ Peshawar because of insufficient accommodation. The border line of responsibility between the ACAS Operations and the AOC Air Defence was also not as clearly defined as it might have been, but this issue was resolved by the C-in-C's decision to transfer the PAF air defence staff element to the GCI control centre at Sakesar. There, the skill and experience of Air Cdre Masroor Hussain could be applied to a direct assessment of the air situation as presented by the Sakesar radar, for immediate on-the-spot decisions on tactics and defence deployment.

For the C-in-C, another major worry was the vulnerability of the two main PAF static early-warning and control radar installations at Sakesar and Badin, in the north and south of West Pakistan. Both were necessarily situated close to the Indian border, and, with their equipment housed in enormous plastic domes visible for 30-40 miles, were incapable of concealment. They were an obvious target for the IAF, and the loss of either would have been a very serious matter indeed since no replacements were available. Their main defence was dependent on only single batteries, each with 16 anti-aircraft guns, but these were virtually powerless against low-level surprise attacks, as events were to prove, despite some reinforcement and protection by CAPs. In fact, in prewar PAF planning exercises it was assumed that operations would have to be conducted without the aid of the two fixed radars, although these did manage to stay in service most of the time.

In addition to 34 air defence missions flown by the PAF on 4 September, all but four of which were from Sargodha, more ground attack missions were flown against Indian army targets in the vicinity of Jaurian and Akhmoor. In one low-level sortie in the Jammu area, Sqn Ldr Alam, accompanied by Flt Lt Jilani, had his cockpit canopy shattered by ground fire but nevertheless continued strafing enemy artillery before nursing his damaged Sabre safely back to Sargodha. Another strike mission, however, led by Sqn Ldr Arshad, CO of No 15 Squadron, with four F-104s flying as top cover, during the afternoon was less fortunate and incurred the first loss to be suffered by the PAF during the period of hostilities.

Two sections, each of four Sabres armed with rockets, followed by a further four carrying Napalm, came across a large convoy of Indian vehicles on the road from Akhmoor to Jaurian, and claimed 26 trucks destroyed. By the time the third flight arrived under the command of Sqn Ldr M. D. Ahmed, no worthwhile targets were left, and while searching for alternatives, these Sabres came under heavy AA fire from guns around the Akhmoor bridge at Jaurian. They nevertheless attacked what appeared to be a large field HQ south of Jammu.

There was no sign of any air opposition, but while exiting at low level, the last man of the third section, Flg Off Nasir Mahmood Butt, received hits on his aircraft and was forced to eject, landing safely near some Pakistani troops. Since no IAF aircraft had been seen, the loss of the Sabre was initially attributed to PakArmy AA

fire, but after the war it was learned that Flt Lt Virendra Singh Pathania had been credited with the destruction of a PAF Sabre in the same area and at an approximately similar time. A second Sabre was also claimed on the same day by India, but no other loss is indicated in PAF records.

The problem of aircraft identification by ground troops manning individual AA weapons was to prove tragically acute in the forthcoming operations, compounded as it was by the fact that both sides were using not only aircraft of closely similar appearance, in the case of the Sabre and the Hunter, but also of a common type in the Canberra. Little blame could be attached to the PakArmy forces, since they had been told for so long that any aircraft seen overhead would inevitably be hostile, but of all the tragedies of war, that of being struck down by your friends is surely among the most poignant.

It was during these operations on 4 September that IAF MiG-21s were reported to be active for the first time, identified by the speed of their tracks through Sakesar GCI. No contact was made, nor in fact sought, by the returning Sabres which the MiGs flew across and behind but from range and endurance factors, it was concluded that they were operating from the IAF base at Pathankot. The IAF is thought to have launched 24-30 fighters in waves during the day, to interfere with the land battle around Daurian, but these were effectively prevented from attacking the PakArmy forces by 12-16 PAF aircraft on CAPs.

Other PAF activity on 4 September included two successful photo recon sorties on behalf of PakArmy by Lockheed RT-33As of No 20 Squadron. The latter were also from Sargodha, under the command of Sqn Ldr M. M. Ahmed. Although as converted trainers the RT-33s were relatively slow, obsolescent and vulnerable, they managed to average two sorties per day throughout most of September, in which 60 missions were completed totalling 73 flying hours. One mission on 4 September was flown unescorted over the Tithwal area to obtain a photographic mosaic, while the second, with top cover by two Sabres, was for a similar task over Akhmoor.





Above left: A key role in PAF air operations control and direction in 1965 was played by Air Commodore Masroor Hussain, who headed the staff at the main radar centre at Sakesar, in the central sector. Air Cdre Hussain is seen here with the C-in-C and President Ayub Khan at Sargodha shortly after the end of the 1965 war.



Centre left: Operational inventory of the PAF at the start of the 1965 war included five Lockheed RT-33A tactical-reconnaissance aircraft of No 20 squadron, based at Sargodha. These slow and obsolescent aircraft completed no fewer than 60 hazardous target reconnaissance flights, sometimes unescorted, during the subsequent operations.



Below: The lightweight Gnat in IAF service was regarded by the PAF as a fairly effective little fighter, although with limited range and an inferior turning circle to the Sabre. It was certainly regarded by the PAF with less respect than the Hunter. This IAF Gnat detachment is seen at Srinager airfield, Kashmir.

On later occasions, the unarmed RT-33s made deep penetrations into Indian territory without fighter escort, but were unsuccessful in the vital task of photographing enemy airfields because they had to turn back to avoid interception by IAF fighters. F-86s and F-104s were used for the visual reconnaissance of heavily-defended targets but, as will be seen, there were also some ingenious adaptations of the Starfighter to obtain vital photographic coverage. An IAF photographic reconnaissance aircraft was also active on 4 September, but in contrast with the PAF activities had no compunction in violating the international border and flying over Pakistan territory to survey the Jhelum-Gujrat area. It was pursued but not fired upon.

Against UN appeals that day from U Thant and the Security Council for Pakistan and India to 'take forthwith all steps for an immediate ceasefire', the contrasting attitudes of the two countries were set out at an evening press conference by AVM Nur Khan. He pointed out that according to the policy of the Pakistan Government, the PAF had not yet violated Indian air space. This, of course, was on the assumption that Pakistan did not recognise the validity of the cease-fire line in Kashmir, over which the PAF had certainly made a large number of ground attack sorties. The C-in-C added:

'As against that India has been enjoying the advantage of choosing her own time and place of air engagements, but that may not be possible for her for long. The PAF has been exercising great restraint by not taking advantage of its right of pursuit of the raiders into Indian territory (ie across the international border proper). In all our combats so far our pilots are outnumbered two to three times. Yet we have not done badly, shooting up four Vampires and forcing down a Gnat intact. However, superiority in numbers does not decide the outcome of air battles; better training, morale, and above all fighting spirit, in fact, are the deciding factors.'

With the capture of Jaurian by PakArmy forces on the morning of 5 September, and the continuation of their advance to a bridgehead only four miles or so short of Akhnoor, events were clearly moving towards a climax. Despite all the advantages of vastly outnumbering the Pakistan forces and of fighting from prepared positions with formidable fortifications, the Indian troops under Gen Chaudhuri had been unable to check the PakArmy thrust, and had suffered very heavy losses in the process. The fall of Jaurian was accompanied by the loss of a complete field regiment of artillery to the PakArmy — which was later to put the captured Indian guns to good use — as well as a large number of prisoners, 15 undamaged AMX tanks and scores of vehicles.

In Pakistan, there was little doubt at this time that, politically, India could not possibly accept the loss of any more territory in Kashmir, where an area of about 300 square miles had been overrun by PakArmy forces, who had also taken Chhamb, Dewa, Sukrana and Jaurian. Since the army was evidently incapable of checking the Pakistan offensive, the probability of a widening of hostilities to other fronts was becoming overwhelming. This conviction was further strengthened by several mysterious messages broadcast over the All-India Radio. That evening, for example, there was an announcement

that, 'there will be heavy rain in the Delhi area for the next 48 hours!' Air Cdre Saeedullah Khan, then temporary Director of Operations, recalls that a check with the PAF meteorological staff revealed that there was no possibility whatsoever of any rain near Delhi, so the message was interpreted to have a different and more sinister significance.

All indications, in fact, pointed to an imminent attack across the international border by Indian forces, but so far as the PAF was concerned, the C-in-C and HQ staff were satisfied that nothing more remained to be done to complete its readiness for action. Apart from the earlier completion of operational deployment plans, the PAF support organisations had been geared for war since the Rann of Kutch operations. Maintenance had been established on the basis of war conditions, using round the clock shifts for work on the widely dispersed aircraft. At Peshawar, these were housed in sandbagged pens put together in 10-15 days by university students who had eagerly volunteered for the job. One of the biggest fears of the PAF, with its limited number of airfields, mostly fairly close to India, was of being knocked out on the ground by a surprise low-level attack, so all the bases were at the highest possible state of alert.

Sargodha, in particular, was extremely vulnerable, both in being the nearest PAF airfield to the main Indian air base complex, and in being crammed to overcrowding with fighter squadrons. Even before hostilities had started, the Sargodha station commander Grp Capt Masud had been told by President Ayub Khan, 'Young man, I hope you realise that if your base goes down, we'll be in a jam so far as air operations are concerned.' If anything, this was an understatement. The emergency strip at Risalwala was the only conceivable stand-by if Sargodha had been knocked out. But Risalwala had no pre-planned dispersal, and its main function was only as a base for the emergency recovery of aircraft. Risalpur was earmarked as an emergency and refuelling base for the PAF B-57s and C-130s, but had no fighter handling facilities.

Curiously enough, while Pakistan was poised on the brink of war on 5 September, the air situation was relatively quiet with only 16 F-86 and F-104 sorties flown during the day. All except four were from Sargodha, and included ground attacks against heavy AA opposition by a quartet of Sabres near Akhnoor. No losses were incurred by the PAF, although one F-86F was slightly damaged by Indian flak. In the course of an attempted interception of an enemy aircraft tracked by radar over Lahore, an F-104 from Sargodha delivered a resounding supersonic double bang over the Amritsar area.

This was solemnly reported by the Indian Defence Minister to Congress in the following terms: 'Pakistani aircraft [have] intruded across the border at Wagah, near Amritsar, and fired rockets at an Indian air force unit.' In a subsequent account of Indo-Pakistan hostilities, the official Indian Defence Ministry description of this incident was as the first PAF attack on the AA battery at Amritsar, which of course was the site of the main IAF early-warning and GCI radar in this crucial area. This 'attack', it was claimed, was 'driven off' by the single AA battery. Amritsar was subsequently to experience many more realistic and damaging visits from the PAF in the course of the ensuing war.

9. In Second Line Service





Some of the PAF types which provided second-line support in 1965 for Pakistan's 140 combat aircraft.

Previous page and left: Although normally employed on search and rescue duties, the PAF's three Kaman HH-43B helicopters of No 4 Squadron spent much of their time in 1965 moving artillery to otherwise inaccessible mountain sites, together with some 31,000lb of ammunition. These slow and unarmed helicopters were flown mainly by Flt Lts Ahmed and Yunus, seen here with other air and ground crew members.

Right: PAF ground crews work on the HH-43B's 825 shp Lycoming T53 shaft-turbine engine, under the supervision of an engineering officer. Note the complexity of the co-axial rotor head.

Below: Some half-dozen Sikorsky H-19 helicopters were operated by No 4 Squadron in 1965 on logistic support and patrol duties.





Above: Four Grumman HU-16 Albatross amphibians were operated by No 4 Squadron in 1965. Under the Command of Sqd Ldr Asfar Khan Jadun, the Grumman HU-16s provided an invaluable airborne element for the integrated air/sea Operations HQ formed as part of Maritims HQ in Karachi in support of the Pakistan Navy.

Right: American general aviation types used by the PAF for liaison and communications included the high-wing Aero Commander 560 and the smaller low-wing Beech 95 Travel Air.



10. War over the Punjab

Even without the benefit of long-range reconnaissance, denied to Pakistan because of its refusal to violate the international border, the Indian army offensive towards Lahore, which began at 03.00hrs on 6 September 1965, should have come as no surprise. It was no more, in fact, than the long-expected conclusion to a situation that had steadily escalated ever since the Rann of Kutch affair. In addition to the main thrust along the Great Trunk Road towards Lahore, the capital of West Pakistan, launched without warning or an ultimatum, the border was crossed by lighter forces in two subsidiary attacks to the south towards Kasur from Khem Karan and to capture the vital crossing over the Ravi River to the north-east at Jassar. The latter was soon to prove a feint to draw out the forces defending the Sialkot area, which two days later were to face the main Indian armoured onslaught, but initially India achieved total surprise.

By an odd coincidence, the major thrust by two Indian infantry brigades supported by corps artillery and armour took place at Wagah, the scene of the alleged 'rocket battle' on the previous day. Equally curious was the fact that the first Pakistani unit to confront the invaders was a PAF detachment near the border. Since this unit was not equipped to fight tanks, the NCO in charge ordered a withdrawal, and reported the encounter to his station commander at Lahore. Without realising that this was a full-scale attack, the Lahore commander ordered the PAF detachment back to its post, but also informed the C-in-C. AVM Nur Khan, however, quickly appraised the true situation, and informed President Ayub Khan with the words: 'This means war.'

There seems little doubt that India planned to advance the 15 miles or so to Lahore within 12 hours of launching the attack, and that the capture of this major city — the capital of West Pakistan — that day was to be a prelude to a lightning drive to cut the country in half and topple its Government. Support for this theory comes from several incidents apart from Indian newspaper claims. It

was later learned that foreign newspaper correspondents in Delhi had been officially warned to stand by for an important announcement at 16.00hrs on 6 September. This statement never came, but it was almost certainly to announce the capture of Lahore, which was thought by Indian Army intelligence to have been undefended.

Further confirmation came with the embarrassingly premature publication by the *Statesman* in New Delhi the next day of a special supplement commemorating the glorious victory of the Indian army in siezing Lahore. That same evening, having been sent the 'news' in advance, even the BBC credited the fall of Lahore to the Indian army, and showed on TV a newsreel supplied by India of a Lahore bus captured at Wagah. It is also widely believed in Pakistan that General Chaudhuri had issued invitations to his senior staff officers to attend a victory cocktail party in the Lahore Gymkhana on the evening of 6 September.

Indian official sources have since denied that there was any intention of capturing Lahore or Sialkot, although it is difficult to envisage what other purpose the thrusts towards these cities could have had. The Indian Defence Ministry was subsequently content to describe the purpose of the attacks as, 'marching into the Lahore sector to forestall an attack in the Punjab', and as a move which, 'will certainly split West Pakistan militarily — lateral lines of road and rail communications will be cut.' So far as Pakistan was concerned, it was soon clear that what was involved was nothing less than a fight for survival. The military forces reacted accordingly, undaunted by the fact that only 28 Pakistan Army infantry battalions faced 121 similar Indian units on the Kasur-Lahore-Sialkot fronts and in Kashmir.

If PakArmy forces had launched Operation Grand Slam into Kashmir without coordinated air support, the Indians were equally and unbelievably remiss on 6 September. There appeared to be little or no liaison between the Indian air and ground elements, and the

sporadic attacks made by the IAF against targets in Pakistan during the day seemed completely uncoordinated with the major effort being made by the Army. As the ACAS Ops Air Cdre Rahim Khan later said:

'The first news which came that day early in the morning was that Indian fighter planes, mostly in pairs, were strafing targets at random without any fixed purpose or aim. There was a report of a train being strafed, a bridge being rocketed and so on. At first, the thought that came to our minds was that some of the IAF units had probably run berserk. But minutes later, when the Joint Operations Centre informed us that the Indian troops had crossed the international border at two or three points, the picture became somewhat clearer.'



The combination of the supersonic Lockheed F-104A Starfighter and the GAR-8 (now AIM-9) Sidewinder AAM was a major factor in the establishment of air superiority by Pakistan in 1965. First success by the Sidewinder in the 1965 war came on 6 September when a missile launched from an F-104A flown by Flt Lt Alam Khan shot down an IAF Mystère near Rahwali, in West Pakistan.



It was about 05.30hrs on 6 September that full realisation of the scale of the Indian onslaught was appreciated in Pakistan, by which time the usual early morning CAPs were airborne to cover the standard VPs (vulnerable points). Among the PAF patrols, which went out at dawn and dusk, were two Starfighters from Sargodha led by Flt Lt Aftab Alam Khan and his wing man, Flt Lt Amjad Khan, who from 30,000ft over Chhamb were vectored by Sakesar GCI towards the scene of a strafing attack by the IAF against a train at Ghakhar Station near Rahwali airfield, Wazirabad. Since it was not yet full daylight, the F-104s let down against orders from Sakesar to stay at 20,000ft, to about 10,000ft, and their pilots eventually made contact with four IAF Mystères. These were busily engaged in bomb and rocket attacks against a stationary passenger train, under the impression that it was carrying ammunition, and on the mobile control and reporting radar equipment of No 230 Squadron at Rahwali.

Although his No 2 had been forced to return to base through radio failure, Flt Lt Aftab Alam dived his F-104 in full afterburner supersonically through the Mystère formation which promptly scattered. The Indian aircraft then began to make their escape by exiting at about 50ft above the ground, registering considerable alarm in the process over the RT, but they were or course no match for the Starfighter. At close to 600 knots, and virtually treetop height, Flt Lt Aftab Alam selected the nearest Mystère, and began his Sidewinder release drill as the range closed to 4-5,000ft. When the missile tone came in, he squeezed the trigger, and seven-tenths of a second later the deadly Sidewinder was on its way.

This slight delay seemed much longer in combat, and Flt Lt Aftab Alam looked out towards his wing tip to see if anything was happening. At that moment, the rocket motor fired with a flash which temporarily blinded him, so he instinctively pulled up clear of the ground. This took him to about 5,000ft where he lost contact with the Mystères, and he could not observe the result of his missile attack. From RT monitoring, and visual observation from Chandas radar, Sakesar was able to tell him that one Mystère had been shot down and one damaged. After he returned to base, he was telephoned from Rahwali with the news that the wreckage of one aircraft had been found, so that his victory was confirmed. Flt Lt Aftab Alam's main reaction was astonishment that a shooting war had started at all, but he also achieved one of the world's first air victories by a Mach 2 combat aircraft.

Despite the encouraging results achieved by his outnumbered force during initial contact with the IAF, AVM Nur Khan admits to feeling 'considerable apprehension' at the magnitude of the task facing the PAF when, with his senior staff officers he attended a joint Chiefs of Staff meeting presided over by President Ayub Khan at 08.30hrs on 6 September. The President and Cabinet he recalls, were 'shattered' at the rapid escalation of hostilities, which to them was completely unexpected. The main point which emerged at this 1½-hour meeting, so far as the PAF was concerned, was that AVM Nur Khan was given complete authority to conduct air operations as he thought fit. He informed the President that one of the earliest priorities would be to implement the long-standing plan to strike at the main

IAF airfields opposite the battle areas, but also assured Pakistan Army that at least part of the PAF fighter force would be earmarked for close support operations, in addition to its main commitments for air defence.

Even before this meeting, which immediately preceded the Presidential announcement that a state of war existed between Pakistan and India, the PAF had begun harassing the Indian ground forces, adding to the fierce resistance they were encountering from a special Pakistan Army strike battalion on the Wagah-Lahore road. After the first section of four Sabres which had taken off at about 08.00hrs from Sargodha returned without contact with the enemy, either on the ground or in the air, six F-86Fs already airborne from Peshawar, each with eight 5in rockets beneath their wings and scheduled for the Chhamb sector, were diverted to the Lahore front by the ACAS Ops, Air Cdre Rahim Khan.

These Sabres were from No 19 Squadron, based at Peshawar, and were being led by their squadron commander, Sqn Ldr (now Wg Cdr) S. S. Haider, universally referred to as 'Nosey' because of his magnificently patrician proboscis. 'Nosey's' pilots had been spoiling for a fight since the latter part of August, when they began flying CAPs over Kashmir, averaging three missions per day. On one occasion, on 27 August, they had made contact with four Hunters in the Akhnoor area, and had headed hopefully towards them, but the Indian aircraft turned back into their own territory and could not therefore be pursued. All that the Sabre section then saw was Indian AA fire from a heavily defended bridge near Akhnoor, blazing away frenziedly at nothing in particular.

By 1 September, 'Nosey's' pilots were feeling very frustrated at the lack of action, and their mood was not improved by the arrival in 'their' area of the two Sargodha Sabres which shot down the four IAF Vampires. Having heard that the Sargodha squadrons had subsequently started ground attack operations while his own unit was still restricted to unopposed CAPs, 'Nosey' begged the C-in-C when he visited Peshawar on 4 September for some action. He was authorised to load up six of his 20 Sabres with Napalm, rockets and bombs, but although they were alerted for possible missions on three occasions it was not until 6 September that ground attack missions started.

In addition to eight armour-piercing 5in rockets, each Sabre was fully armed with 1,800 rounds of ammunition for its six 0.5in machine-guns as the six aircraft led by 'Nosey' took off from Peshawar at about 09.00hrs. Flying along the Lahore-Amritsar road at about 1,000ft, the Sabre pilots saw tank tracks in Pakistan territory, and dived down to about 50ft to identify the armour. From their saffron roundels, the tanks were obviously Indian and unperturbed by sporadic AA fire from Atari village and from the target area, 'Nosey' methodically set about organising a text-book attack. He sent his No 5 and 6 Sabres up to 7,000ft as top cover (later reinforced by a F-104) while the remaining four aircraft pulled up to 4-5,000ft for the standard rocket attack sequence.

In the first of about five runs which each Sabre made over the vehicle concentration, 'Nosey' sighted carefully and released four of his rockets in pairs, and saw his tank target explode into flames. As he pulled up for the next





One of the leading PAF ground-attack units in the 1965 war was No 19 Squadron, led by Sqn Ldr 'Nosey' Haider, which started these operations on 6 September. Sqn Ldr Haider is seen here in the cockpit of this F-86F Sabre, and with several of his pilots before and after some of the squadron's devastating close support sorties.

run, he saw another Indian tank lift visibly off the ground as the rockets from his No 3 slammed into it. During their 15 minutes or so over the target area, most of the Sabre pilots managed to shoot up two tanks each with their rockets and a Pakistan Army observer estimated that at least 10 armoured vehicles had been destroyed by the end of the attack. Only seven were claimed by the PAF, however, plus another 20 vehicles which were machine-gunned after all the rockets had been expended. It was later learned that this Indian army brigade was forming up to launch an attack across the BRB canal towards Lahore. The PAF attack achieved a vital delay which enabled PakArmy forces to move into position to block any further Indian advance.

With fuel margins perilously low, the Sabres then landed at Sargodha to top up their tanks before returning to Peshawar. After the de-briefing it was clear that this determined and carefully delivered attack had achieved a major effect on the critical situation confronting the troops of 10 Div PakArmy, facing the advancing Indian forces near the Batapur bridge. Pakistani engineers were desperately trying to demolish this bridge at the time, to slow down the Indian advance. The enemy tanks, identified as Shermans were considered by the Sabre pilots as excellent targets, with their large flat tops and open tracks, but 'Nosey' felt that Napalm (jellied petroleum) fire bombs could have done more damage. He made this recommendation to the C-in-C and the ACAS Ops shortly afterwards, and the Sargodha ground attack

squadrons were promptly instructed to include Napalm among their next loads.

While the PAF was beginning its efforts to stem the Indian attack, to such good effect that the Lahore offensive had ground to a halt by about midday on 6 September, AVM Nur Khan followed up the Presidential declaration of war with an Order of the Day to his Air Force:

'Since 1 September when the PAF was called upon to go into action against the IAF in Kashmir, we have carried out all our operational commitments in a highly successful manner. This has been possible because of the magnificent way everyone in the PAF reacted to the

emergency. We are now faced with a total war and are required to perform our supreme task. I am confident that we will prove equal to the challenge and all airmen and officers, particularly the aircrew, will discharge their responsibilities with even greater devotion, dedication and determination ensuring our ultimate victory. I wish you all success and good hunting.'

Incredibly, the Indian offensive struggled on without any form of air support, and the IAF did not challenge the repeated ground attack sorties flown without loss by the PAF throughout the day up to 15.45hrs. Eleven sorties were completed from Sargodha in support of the Pak Army on the Lahore front, plus a further four in the vicinity of Jassar Bridge, striking at Indian army vehicles, troops and artillery. The PAF was also very sensitive towards possible IAF strikes against its bases, which accounted for the 22 F-86 and 15 F-104 CAP sorties flown from Sargodha and six each from Peshawar and Mauripur on 6 September.

When the C-in-C returned from the President's office at about 10.00hrs, he was again asked by the ACAS Ops, Air Cdre Rahim Khan, whether action should be taken to implement the long-established War Plan No 6 of June 1965 to neutralise selected vital elements of the IAF by strikes against their airfields. This time the answer was affirmative. The C-in-C had decided to attack the main IAF bases just before dusk, as originally planned, although not without considerable misgivings. Looking back, AVM Nur Khan recollects the mid-morning of 6 September as the most critical and tense period of the war from his personal viewpoint, when he experienced to the full all the ultimate loneliness of command.

Militarily, the advantages of getting in the first strike were unarguable so far as the vastly outnumbered PAF was concerned, but there could be no doubt as to the effect of such a blow on the escalation of operations as a whole. The sort of questions the C-in-C had to ask himself were: Could the PAF withstand the inevitable IAF retaliation? Could it take the risk of losing its priceless radar eyes if the vulnerable installation at Sakesar were to be put out of action? Would it not be



Top: Main anti-tank armament carried by the PAF's F-86Fs in the 1965 war comprised eight 5in armour-piercing high-velocity aircraft rockets, seen here being loaded at Sargodha.

Above: One of the most widely-used ground-attack weapons by the PAF during the 1965 war was the 2.75in rocket, carried in pods of seven on the inner wing pylons of the F-86F.

Right: One of the earliest air combat encounters in the 1965 war was an unequally-matched dogfight between a Sidewinder-armed Starfighter and an IAF Mystère IVA, from which not unnaturally the F-104A emerged the victor. Mystères continued to be used, however, for several days in the ground attack role, including a daylight strike on Sargodha.



wiser to adopt the IAF tactics of playing safe and restrict air operations so as at least to retain the PAF as a force in being?

In weighing up the situation, the C-in-C had to assume that the IAF was just as prepared to meet airfield strikes as the PAF, but was far better equipped to absorb fairly high casualties in the first few days of operations. Although about 50% of the PAF pilots were extremely experienced, the remainder could not be counted upon except as untested youngsters, and Pakistan had no reserves whatsoever of either men or machines. Even with an aircraft loss ratio as favourable as four to one, the PAF would never be able to recover from heavy initial casualties. It would certainly be unable to provide PakArmy with the support it required. If it were to be knocked out, Pakistan would be at the mercy of the overwhelmingly more numerous units of the Indian army and air force. Even obsolete aircraft like the Vampire could then be brought back into service in support of the final land battle that might well spell the end of Pakistan.

The risks of commitment to the airfield strike plan were grave, but the consequences of inaction were potentially still more hazardous. AVM Nur Khan received no guidance from the Government for his agonised assessment of the most crucial question of the air war, but his inclination to go ahead with the strike plan was reinforced by the support he received for the proposal from his staff.

There was, in any case, little time for prolonged deliberation. With the decision taken at 11.00hrs, and the necessary time allocated to conveying the combat orders in cipher, it was not until about 13.00hrs on 6 September that the mission signals had been received by all the units concerned.

As amended by the needs of the moment, the PAF airfield strike plan was as follows:

Take-off Base	Commitment	Target
Sargodha	8 F-86Fs	Adampur
Sargodha	8 F-86Fs	Halwara
Sargodha	4 T-33s	Ferozpur Radar
Sargodha	6 F-86Fs	Amritsar Radar
	1 RB-57 ELINT	
Peshawar	8 F-86Fs	Pathankot
		Srinagar
Mauripur	8 F-86Fs	Jamnagar
Mauripur	4 T-33s	Porbunder Radar
Mauripur	12 B-57s	Jamnagar

For so complex an operation, requiring a very high degree of coordination and precise timing to achieve a simultaneous time-on-target (TOT) of 17.05hrs, a great deal of preliminary organisation was necessary despite the basic pre-planning. Another essential requirement was adequate aircraft availability, but the demands of PakArmy for air support on 6 September, plus the need for a major air defence commitment militated against both these conditions. During the early hours of 6 September, up to about midday, the Sargodha Sabres alone had flown about 40 sorties, and several of those returning from ground attack missions were temporarily out of action because of minor damage and unserviceability.

For its airfield strike commitment alone, the Sargodha wing required the preparation of 20 Sabres, including four reserves. Twelve F-86Fs from No 18 Squadron, led by Sqn Ldr 'Butch' Ahmed, plus six T-33s from Mauripur were therefore allocated to augment the Sargodha force, having previously been earmarked to attack Adampur from Risalawala. The Mauripur element had been standing by to move to Sargodha since mid-morning on the 6th but its pilots did not receive the take-off signal until about 12.50hrs, and the first eight were not airborne until 13.20hrs. The main reason for the delay was to avoid exposing too many aircraft on the already overcrowded airfield at Sargodha for too long to possible IAF attack — then considered as extremely likely.

Their supporting C-130, carrying ground crews and equipment, did not synchronise its movements with the fighter element, with the result that it was not possible even to refuel the Sabres after their arrival at Sargodha before 16.30hrs — only 35 minutes before the scheduled TOT.

To add to the serious problems being encountered at Sargodha, four of the Mauripur Sabres arrived with major defects requiring rectification. The maintenance personnel at Sargodha were already more than fully extended with refuelling and arming up the strike aircraft, replenishing their oxygen supplies and so on, and even their devoted and tireless efforts could not meet the minimal time-scale confronting them. It was not until about 16.00hrs that the last Sabre landed back at Sargodha from the close support missions, and it became obvious that nowhere near the required number of aircraft would be ready in time.

At about 16.15hrs, the Sargodha station commander, Grp Capt M. Z. Masud telephoned the C-in-C at Theatre to inform him that only four F-86s were available for each of three targets — Adampur, Halwara and Amritsar Radar — and suggested that the whole airfield strike operation be postponed by 24 hours. There had been no sign of the IAF that day, and the delay would give Sargodha the necessary time to prepare all the aircraft required. Furthermore, he felt that the Sargodha pilots, all of whom had already experienced a very full day, should be the ones to undertake these strikes as they had virtually lived with the enemy airfield targets for some time.

These arguments were carefully considered by the C-in-C but, in the end, the danger of the IAF being left the initiative to strike the first blow against the PAF on the ground was considered to outweigh the fact that only a fraction of the Pakistani force originally envisaged would be available for the initial attack against the Indian airfields. There was the additional factor that the Peshawar force was fully prepared and ready to go against its Pathankot primary target, and the B-57 squadrons were standing by to follow up the fighter strikes during the night. Grp Capt Masud was therefore ordered to proceed as planned, irrespective of the numbers of aircraft available.

Even after this directive, Grp Capt Masud felt compelled to make one final telephone call to the ACAS Ops, at Air HQ, only a few minutes before 17.00hrs, when it was found that the maximum force Sargodha could produce was only eight Sabres. The station

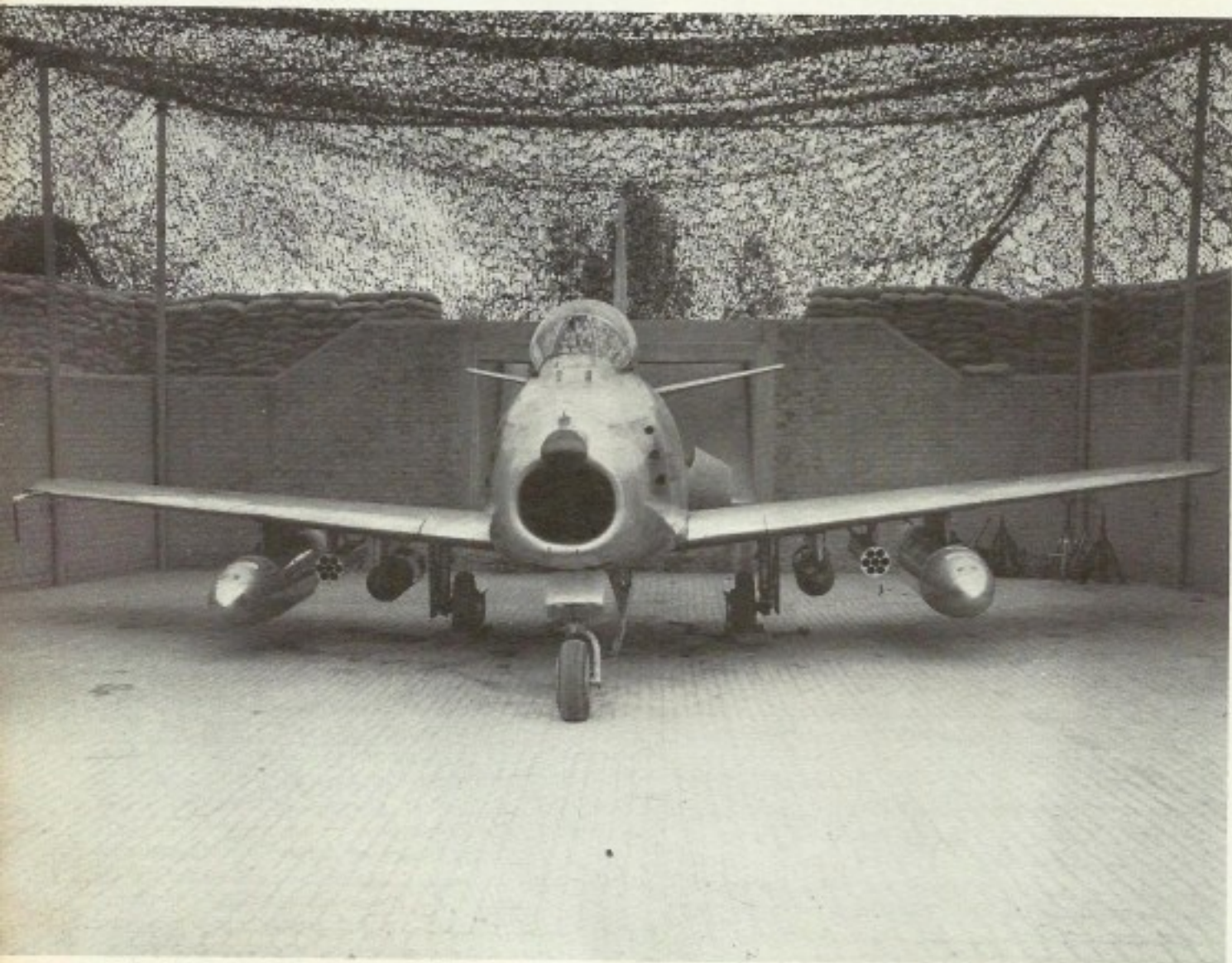
commander suggested that as this was only 50% of the required number, all eight aircraft should be despatched against a single target, instead of being split between both Adampur and Helwara. This would have represented a more viable force, in Grp Capt Masud's view, against the heavy air opposition expected around the IAF air base complexes.

Once again, however, the Sargodha station commander was overruled, with ACAS Ops' decision endorsed by the C-in-C, although fate had still not finished with the star-crossed PAF strike project. When the eight aircraft finally started up at Sargodha, one was found to be unserviceable, and there were no reserves. It was not considered expedient to use any of the air defence Sabres that were available, since the PAF was still expecting a dusk strike on its own bases. It was with a feeling of grave misgivings that Grp Capt Masud watched only seven Sabres taxiing out to take on the entire IAF strength at two major bases, in an area 'crawling with

Below: On some occasions, PAF Sabres engaged on ground-attack duties carried both bombs and 2.75in rocket pods on their underwing pylons, as well as the normal long-range drop tanks. The protected and camouflaged aircraft shelters were not a common feature at PAF airfields in 1965, although introduced more widely thereafter.

Huters'. The final unserviceability of yet another Sabre, manned by Flt Lt Saleem, just before take-off with generator failure, in his view was sufficient reason to have concentrated the Sargodha strike force against a single airfield, but the die was already cast.

Nor was this the end of the PAF's misfortunes so far as the airfield strike plan was concerned. One of the most vital features of the plan was to have been to ensure that all the participating PAF aircraft crossed the international border simultaneously, to attain the maximum element of surprise. But while the Peshawar element took off as scheduled at 16.15hrs for the 17.00hrs (TOT) at Pathankot, the problems encountered at Sargodha meant that the first three aircraft, led by Sqn Ldr Alam, did not even get airborne until 17.10hrs to attack Adampur. There was a delay of yet another 10 minutes before the second section of three Sabres followed for Halwara, led by Sqn Ldr Rafiqi. Apart from the problems of fast-fading light, the vast resulting difference in times-over-target meant that the Pathankot strike would give the Indian defences so much warning of PAF intentions, that the Sargodha element might just as well have sent the enemy a telegram telling them they were coming.



11. Triumph & Tragedy

For the initial stage of the shooting war with India, the PAF plan was to attempt to neutralise the forward enemy air bases and induce the IAF to retaliate, for the minimum attrition attainable on its own part. So vital was the need to be first with the air base strikes, that the PAF C-in-C had to take a calculated risk in attacking with depleted forces. As it happened, the original intention of these strikes was not fulfilled, which is the fortune of war. Nevertheless, the PAF emerged with a favourable balance from the fiercest combats it had yet encountered, and received the first clear indication that the Sabre was not outmatched by the Hunter.

One of the last jobs to be done before authorising the departure of the airfield strike elements had been to check the main IAF forward bases to see that their aircraft had not been withdrawn. Two Lockheed F-104s flown by Sqn Ldrs Iqbal and Hakimulla streaked low over Adampur and Helwara, at about 15.30hrs, on a visual recce, resisting with difficulty their instructions not to open fire. From their height of about 1,000ft, and the five to eight minutes they spent over each airfield, without any form of opposition, they could not have missed the large numbers of IAF aircraft they found there. Their appearance and failure to attack, however, must have left the Indians in little doubt as to their purpose, and of what was to follow.

It has become possible, since the 1965 war, to reconstruct in detail the progress of each of the three strike elements which made the first real penetrations into Indian territory on 6 September.

Pathankot

From Peshawar, as already indicated, the eight Sabres of No 19 Squadron, led by Sqn Ldr 'Nosey' Haider, were the only element to be able to adhere throughout to the attack plan, and to complete a text-book operation against Pathankot. This was the only large IAF airfield within fighter reach of Peshawar, and even this distance of 200 miles or so was marginal for the Sabre, with two

200-gallon drop tanks in addition to full internal fuel, if sufficient reserve was to be kept in hand for a fighting exit.

There was some doubt in the minds of the PAF planning staff as to whether Pathankot would still be occupied by the IAF. But the force of eight Sabres, escorted by two more F-86s carrying Sidewinders as top cover at 15,000ft, were fortunate. When the PAF aircraft reached Pathankot precisely on time at 17.00hrs after a diversionary hi-lo approach descending to tree-top height from 32,000ft about 20 miles short of the border to avoid the Indian radar, a large number of IAF aircraft were parked around in protected dispersal pens. On the way in, with gun switches selected from 'safe' to 'fire' when crossing the frontier, the eight Sabres in two sections of four had passed below a couple of IAF Gnats flying at about 5,000ft without being detected.

At the 15.30hrs briefing for the Pathankot strike, for which no airfield photographs were unfortunately available, the plan was for each pilot to make two attacks with his six 0.5in Browning guns, and 1,800 rounds of API (armour-piercing and incendiary) ammunition per aircraft as sole armament. With no enemy fighters in the vicinity, however, and 'fairly thin' ground fire, 'Nosey' set the ball rolling with four carefully-positioned dives from about 1,500ft, systematically selecting individual aircraft in protected pens on the airfield for his fixed-gun attacks. He was gratified to recognise the distinctive delta-winged MiG-21s, — India's latest fighter — among the aircraft on the ground, and singled them out for special attention. As the rest of his pilots followed suit, Wg Cdr Tawab flying one of the two Sabres on top cover counted 14 fires burning on the airfield, and observed quite a bit of light flak.

Only one PAF aircraft was hit during this strike, however, with minor damage in the lower fuselage and wing. After their attacks, the Sabres hugged the ground for five minutes or so for their exit from the target, pulling

up when clear to stretch their fuel for the return flight. Even though they had retained their drop tanks throughout the attack to get as much fuel from them as possible, most landed with less than 300lb left on board at the nearest airfield, which was Sargodha. This was enough for only two to three minutes of flight, and one of the Peshawar Sabres ran completely out of fuel just as it turned off the runway after landing. The sort of margin was clearly unacceptable, but on many occasions throughout the war, some PAF Sabre pilots counted themselves fortunate if they were able to land with more than about 3-400lb of fuel on board. Certainly after about 80% of their wartime missions, the Sabres of No 19 Squadron landed back with 300lb of fuel or less. Operating with this sort of margin was made possible only because of the excellent recovery procedures and instructions from Sakesar SOC.

After de-briefing and interrogation, the Pathankot strike element were credited with seven MiG-21s, five Mystères and one Fairchild C-119 destroyed on the ground, plus damage to the Air Traffic Control building. Later assessments by the PAF Director of Plans and Operations, were inclined to consider the number of MiGs credited as slightly optimistic, while the Indians claimed they were not MiG-21s at all, but Mystères. The IAF official history states that only nine MiG-21s were in service at this time, and India was prepared to show eight at the end of the campaign. But whatever the precise details of the damage at Pathankot, it was an undisputed success in being inflicted without loss. Unfortunately it was the only one of the three strikes to prove successful.

Adampur

With Sqn Ldr Alam in the lead, the three Sabres of No 11 Squadron skimming low across the Punjab towards Adampur in the quickly gathering dusk soon heard warnings from Sakesar SOC that enemy fighters alerted by the Pathankot raid were on the prowl in their vicinity. When only 30 seconds short of their IP (Initial Point) at Taran Taran, south of Amritsar, the Sabre section encountered four Hunters flying slightly above them at about 500ft ground and crossing at almost 90 degrees in close attack formation. Wg Cdr Alam recalls:

'I remember thinking what very pretty aircraft these brand new Hunters were as I ordered my section to punch tanks. The Hunters also jettisoned their drop tanks, and we turned into each other for combat. The fight didn't last long. I got my sights on the No 4 Hunter, and after a brief burst, he flicked and went into the ground in a great ball of flame, although I'm not certain whether I hit him or not. For once, we were evenly matched, numerically, although I never fought at such low altitudes again, nor often at such low speeds.'

Right: From Peshawar, eight F-86Fs of No 19 Squadron, led by Sqn Ldr 'Nosey' Haider, SJ — seen here before take-off — made a textbook strafing attack against the IAF airfield at Pathankot at dusk on 6 September without loss. This was the only PAF element to be able to adhere throughout to the original attack plan.





Twisting and turning at tree-top height, the six aircraft were being racked round in individual combat at less than 200 knots to try and get on each other's tails. Alam continues:

'Before the war in our appreciation of the Hunter, we had some apprehension in our minds that, with its manoeuvring flaps, this aircraft might be able to out-turn the Sabre. In this encounter, we were very close to each other — not more than about 1,000ft — when I saw my opponent's split flaps go down. So I also lowered my flaps, although our limiting speed is rather higher — around 185 knots — and I was flying at about 200 knots at the time. But I found that the only thing it did was to slow me down — I had no problem keeping behind the chap — so I put them up again.

'We continued tail-chasing and I soon shot down my second quarry. We had started off by pulling about five g during the turns, but as the speed fell off, we got down to perhaps less than two g.

'During the scrap, I had all the other five aircraft in sight, and I watched one of my wing men, Sqn Ldr "Butch" Ahmed score strikes on one of the Hunters in front of him. I think it was hit in the wings as white vapour was streaming from the fuel tanks. We had been in combat for five or six minutes within about 40 miles of Adampur, and I was getting worried that more Indian fighters might be sent to the scene, so I gave a call to all my flight members to return to base.

'As it happened, the planned PAF strike on Amritsar radar had been aborted at this time, and there were IAF fighters returning from the area to their base at Halwara. My flight was exiting individually at very low level when I came across a couple of these Hunters. I pressed my trigger once to see if I had any ammunition or not. There is no ammunition indicator in the Sabre, but with 300 rounds per gun, or 15 seconds of firing, you seldom run short. The Hunter has 125 rounds of 30mm shells for each of its four cannon, which give little more than six seconds of firing time.

'After the reassuring noise of my guns, I turned into the enemy aircraft and took a shot at the last man at long range. He turned into me, then took off his bank. I think I registered hits — I only saw smoke coming out, and no flames. As a wise man, I thought I should not turn back after him as I was low on fuel. So I crossed the border and climbed up to contact our GCI and check my position. I was not sure what had happened to the rest of my flight, and I was relieved to hear that they were all in the vicinity of Sargodha, where I came back and landed. This was the first time we had encountered the Hunter, and any misgivings we had in our minds were resolved that day. In manoeuvrability, the Sabre was undoubtedly better than the Hunter.'

Both Sqn Ldr Ahmed and Flt Lt Hatmi, who had accompanied Sqn Ldr Alam, claimed a Hunter as damaged during this engagement, despite troubles with their gunsights. These had to be used as fixed sights, without their computing facilities, but supporting evidence for the claims of the PAF pilots came on the following day. All-India Radio announced that Flt Lt Hussain (believed to be the son of the Indian Vice-President Zakir Hussain), had been awarded the Vir Chakra for bringing back a badly damaged Hunter after intercepting enemy Sabres at about the time of the first engagement near Adampur.

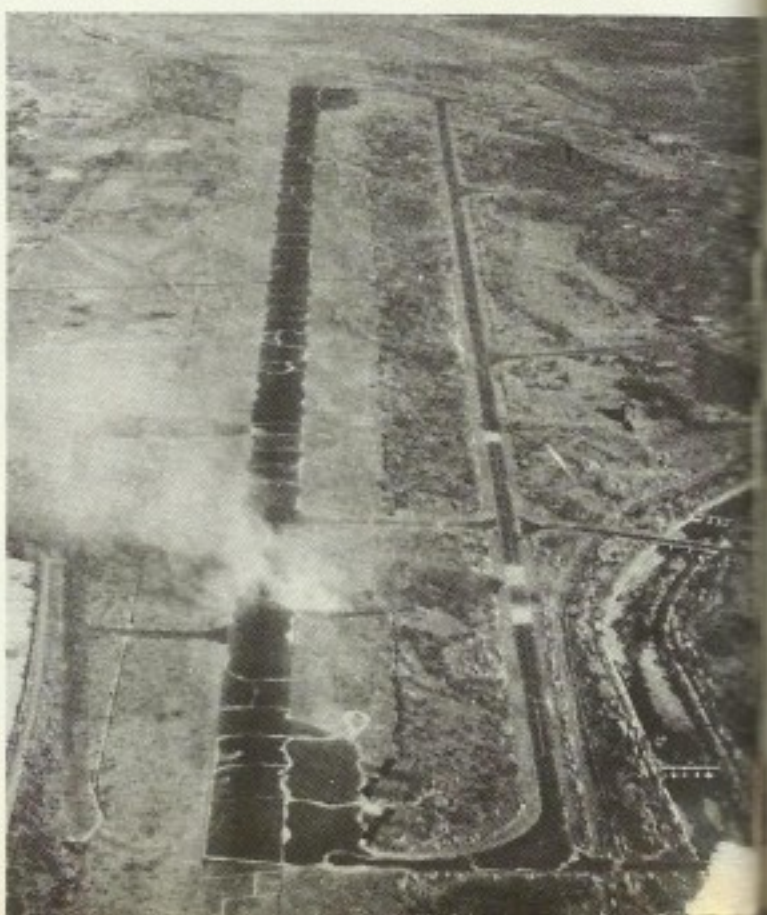
Although these Sabres had been prevented from reaching their target, the PAF could feel reasonably well satisfied at the credit balance of two Hunters destroyed and three more damaged, without loss.

Halwara

By the time the last section of Sabres from No 5 Squadron, led by Sqn Ldr Sarfaraz Ahmed Rafiqui, with Flt Lt Cecil Choudhry as his No 2, and Flt Lt Yunus Hussain as his No 3, had got airborne and were heading for the border, daylight was fading fast. The Halwara strike element actually crossed the international border on its way out just as the other Sargodha Sabres were returning from the abortive Adampur raid, and the two elements made visual contact with each other at very low level. Calling up on the RT, 'Butch' Ahmed warned, 'Sabres entering, keep a good look out — lots of Hunters around.' Conscious of being the only PAF aircraft over Indian territory, the formation appreciated the warning, although no reminder was necessary to keep them on the alert.

Nothing was seen of enemy air opposition, however, by the time the section estimated it had reached the target. By then, the visibility had become so poor that ground features were not identifiable even from 1,500ft, although

Right: Photographed by the PAF, the main IAF base at Pathankot, with its single very long camouflaged runway and parallel taxi track, housed some of the IAF's very first MiG-21s at the time of the 1965 war. Seven of these were claimed destroyed on the ground by No 19 Squadron, although the IAF admitted the loss of only one of nine then said to be in service.



the planned attack height had been 3,500ft. As the Sabres orbited at about 200ft to try and find Halwara airfield, Cecil Choudhry called up his leader to report two IAF Fairchild C-119 transport aircraft flying in the opposite direction. Rafiqui replied, 'Leave them alone. We'll have something better to do in a few minutes.' But despite another five minutes or so of circling around over hostile territory, the light was too bad for anything to be distinguished on the ground.

At that point, Choudhry's drop tanks ran dry, so he punched them, as briefed. Rafiqui then called up Yunus Hussain and told him to hang on to his tanks unless forced to jettison them, as he could foresee a possible shortage of these expendable items. From then on, the story is reconstructed by Cecil Choudhry, lean, laconic and wolfish, who was to emerge as the sole survivor of the ill-fated Halwara strike force:

Rafiqui: 'Two Hunters, 12 o'clock high — keep an eye on them.'

At this stage the Sabres were flying straight and level at 150-200ft, and the Hunters were in a left-hand orbit a couple of hundred feet higher.

Yunus: 'Lead, let's get them.'

Rafiqui: 'We will. Cecil, you take the one on the left and I'll take the one on the right.'

During the orbits, Yunus and Choudhry had been criss-crossing behind their leader to keep his tail clear, so that Rafiqui could not be sure who was on which side at any particular time. Yunus therefore called up and suggested that from their present position Rafiqui should tackle the left-hand Hunter and he would take the one on the right.

Cecil: 'Alpha, your tail is clear — shoot.'

Choudhry then saw the left-hand (lead) Hunter explode under Rafiqui's guns. Yunus had not yet fired, and just as Rafiqui called up to ask him why, his target Hunter, flying in the No 2 position broke viciously to the right. Yunus



Above: Although the PAF strike against Adampur air base, led by Sqn Ldr Alam, was intercepted by IAF Hunters just before reaching its target, the Pakistani squadron commander opened his score in the 1965 war by shooting down two of the enemy aircraft.

Left: Sole survivor of the ill-fated Sabre section which attempted to attack Halwara airfield on 6 September, Flt Lt Cecil Choudhry discusses his wartime operations with the British air attaché in Pakistan at Sargodha. In the background can be seen the captured IAF Gnat. Flt Lt Choudhry was credited with the destruction of two Hunters in the Halwara engagement, for which he was awarded the Sitara-e-Jurat.





turned with him, covered by the remaining two Sabres, when Choudhry suddenly saw two more Hunters coming in from the right.

Choudhry: 'Lead, two Hunters pulling up from starboard.'

Rafiqui: 'Contact.'

Choudhry: 'Two more Hunters from the left, and another two.'

Rafiqui: 'Roger, keep my tail clear.'

The Sabre leader sounded very confident at this stage, despite facing odds of three to one deep in enemy territory. Yunus had broken off for the moment pursuing the No 2 Hunter, and, like Rafiqui, had not jettisoned his drop tanks. These, however, were empty, and in any case had little effect on manoeuvrability. Rafiqui positioned himself behind the first two Hunters and fired a short burst, only to experience the penultimate disaster in combat of having his guns jam. To Choudhry's dismay, he heard his squadron commander on the RT: 'Cecil, my guns have stopped firing, take over the lead.'

In the poor visibility then prevailing, Rafiqui could very easily have disengaged from the superior force of Hunters. This, of course, would have meant leaving Yunus on his own. With no one to cover his tail, a single aircraft is a sitting duck in a dog-fight. As Choudhry moved forward into the lead, he called, 'Four Hunters to the left and two on the right, but your tail is clear.' Rafiqui acknowledged as Choudhry turned behind the two right-hand Hunters. The first, with its superior acceleration drew away, but the second was hit by Choudhry on its port wing, which started to stream smoke. It then straightened out, pulled up into a steep climb and Choudhry saw the pilot eject.

When Choudhry next looked round, he could see no other aircraft at all, and repeated calls on the RT to his other flight members brought no response. He could see

Above left: Sqn Ldr Sarfaraz Ahmed Rafiqui, HJ, SJ, who shot down an IAF Hunter near Halwara before his guns jammed. He was then killed in air combat with a Hunter flown by Flt Off Ghandhi, IAF, after attempting to provide support for the two Sabres of his section. His bravery was recognised by the award of the Hilal-e-Jurat and the Sitara-e-Jurat, and is commemorated by a PAF air base which now bears his name.

Above: Outnumbered by an intercepting IAF force of Hunters, Flt Lt Yunus Hussain was killed in action over Halwara after shooting down one of his opponents. He was awarded a posthumous Sitara-e-Jurat — the equivalent of the British Distinguished Flying Cross.

one Hunter burning on the ground, and then suddenly became aware of gun flashes from another two Hunters firing at him while he was flying along at about 150-200ft. He recalls:

'I turned hard and dived at right angles to the Hunters, which were sandwiched between my Sabre and the ground. The leader flashed past underneath me, but his No 2 was too low to make it. His wing tip hit the ground, and he cartwheeled in a smear of flame.

'I pulled up, throttled back to idle, popped the speed brakes out and did a nose-high full barrel roll, putting the flaps down in the process to get the speed down to about 120 knots. As I expected, a Hunter overshot in front of me, and when I pressed the trigger, it blew up in my face. I nearly flew through the fireball, but just about managed to stagger over it. There was still no sign of Rafiqui, but then I saw a Hunter and an F-86 manoeuvring around in classic scissors tactics, with the Sabre obviously gaining on the IAF aircraft. I thought it must have been Rafiqui, until I saw the Sabre roll over on its back and flame the Hunter with a beautifully aimed burst of fire. Yunus was one of the best shots in the PAF and I called him up and asked him if he had just got a Hunter.'

Yunus: 'Affirmative.'

Choudhry: 'Contact. Your tail is clear.'

Yunus: 'Let's get out of here.'

As they began to exit in line abreast, Choudhry noticed that Yunus still had his drop tanks on, and reminded him to jettison them. Nothing happened, and Choudhry was just in the process of asking about Rafiqui, when he saw two more Hunters diving towards them.

Choudhry: 'Two Hunters, six o'clock high.'

Yunus: 'Contact. Continue.'

With the Hunters levelling out behind them, Choudhry called, 'Break left'. He continued:

'For some unaccountable reason Yunus did something which he had always preached against, and broke upwards. It's very difficult to shoot down another aircraft at low altitude if you fight at the same level. He may of course have been hit, but in any case I saw him catch fire. The Hunter pulled up and the Sabre still appeared to be under control. I called Yunus two or three times on the RT and yelled at him to eject, but the cockpit was a mass of flames.

'I pulled up behind the two Hunters and stayed below them in their blind spot. They were taking no evasive action, so I obviously hadn't been seen. Just as I was closing in, however, they suddenly broke violently away. I then saw two more Hunters behind me who had obviously warned the pair in front. I broke into the rear two, heading back into India. After a hasty look at my fuel state, however, which was none too healthy, I decided to get out. This meant milling around for a while with the four Hunters, but through very poor flying on their part I worked my way round in the right direction flat out on the deck.

'In my rear-view mirror, I watched the lead Hunter pull up and weave from side to side, so he had obviously lost me. A minute or so later, I crossed the River Beas, so we had evidently been very close to Halwara. I found my way back to Lahore, then pulled up to about 20,000ft to return to Sargodha. I expected to flame out about 20 miles short but I didn't actually run out of fuel until I was final approach to land, when I was ready for it. I could only claim two Hunters destroyed, as I had no proof about the one that had flown into the ground. But Rafiqui got at least one and I saw Yunus get another, apart from the first Hunter he pursued.'

How does a man — even a fighting man as professional as Cecil Choudhry — feel after seeing his friend killed before his eyes, facing death himself for so long, and yet making a miraculous escape as sole survivor? 'I was very fond of Rafiqui. After a loss like that, you either break down completely or go raving mad for revenge. This is probably why I was so aggressive when I was left on my own facing the other Hunters.'

All three pilots on the Halwara raid (two posthumously) were awarded the Sitara-e-Jurat, which is roughly equivalent to the British Distinguished Flying Cross. For his selfless devotion to duty, Sqn Ldr Rafiqui also received the posthumous award of one of Pakistan's highest decorations, the Hilal-e-Jurat. Part of his citation read:

'Sqn Ldr Rafiqui had shot down one Hunter from a formation of 10 before his guns jammed due to a defect

and stopped firing, but he refused to leave the battle area as he would have been perfectly justified to do. Instead he ordered his No 2 to take over as leader and continue the engagement with the enemy. He himself took up a defensive position in the formation in an attempt to give it as much protection as possible by continuing fighting manoeuvres in an unarmed aircraft, whilst the remainder proceeded to give battle to the enemy. This called for a quality of courage and dedication on the part of Sqn Ldr Rafiqui equal to the best in the history of air fighting. The end for him was never in doubt ...'

Exactly how Sqn Ldr Rafiqui met his end has never been established. This 30-year old fighter leader who had been born in East Pakistan, died, however, in the finest traditions of the PAF. A year younger than his leader, Flt Lt Yunus Hussain also provided an inspiration to the Pakistani people through his courage and determination against heavy odds.

An official Indian report of the Halwara battle claims that four PAF Sabres were said to be attacking the IAF airfield and were all shot down by AA fire and patrolling Hunters. Two of these, flown by Flt Lt D. N. Rathore and Flg Off V. K. Neb saw a dogfight in progress over the airfield between PAF Sabres and two other Hunters, led by Flg Off Ghandhi, which they promptly joined. 'In the first skirmish, however,' added the report, 'one Sabre had been downed by ground fire, and the second had fallen to Ghandhi's guns.' While the two 'remaining' Sabres were intent on bombing and strafing the airfield, Rathore closed in on the aircraft on his right, opening fire at 650yd, and instructing Neb to attack the F-86 on the left. 'Closing in still further,' continues the report, 'Rathore fired again from 500yd. This time the Sabre was mortally hit ... and turned into the ground in a huge sheet of flame five or six miles from the airfield.' Neb, who had never before done any air-to-air firing and was still under operational training closed in on the second Sabre (said still to be attacking the airfield) and opened fire at 400yd. 'The Pakistani pilot at once abandoned his attack on Halwara and pulled up sharply. Neb ... rapidly closed in to less than 100yd and fired again on the sharply climbing Sabre, which now presented a much better target. He saw pieces fly off the Sabre as his cannon shells found their mark on the Sabre's left wing. There was a puff of smoke which rapidly turned into a sheet of flame as the last of the four Pakistani Sabres disintegrated in mid-air and fell to the ground.'

Other inaccuracies apart, this could well be a true description of the deaths of Sqn Ldr Rafiqui and Flt Lt Hussain. The other 'victories' were demonstrably untrue, and PAF records indicate that in fact Flg Off Ghandhi was victim rather than victor (see footnote).

Despite the postwar Indian claims for four Sabres shot down over Halwara without loss, the final PAF assessment for the airfield strikes comprised at least seven Hunters destroyed* in the air, plus a dozen or so aircraft

*Curiously, no Hunter losses were officially admitted by the IAF on 6 September. The PAF, however, has records of at least two IAF pilots, Flg Off P. N. Pingali and Flg Off Ghandhi, who ejected from Hunters in air combat near Halwara on that date, plus five other Hunter pilots who were killed or ejected on unspecified dates around this time.

on the ground and three or four damaged for the loss of two PAF F-86s and their pilots.

This was reasonable arithmetic which alone could possibly have justified the contentious decision to go ahead with the strike plan despite its unfavourable circumstances. But as night fell on 6 September, PAF morale and confidence reached new heights with the knowledge that beyond all doubt not only had the Sabre got the measure of the Hunter, but also that the Pakistani pilots could out-fly and out-fight their Indian counterparts, despite the inevitable disparity in numbers.

At Air HQ, the elation of emerging satisfactorily from the most decisive day of the war was subdued by the loss of two popular and experienced officers. The PAF could not afford to go on losing pilots of their calibre — the C-in-C knew Rafiqui as a 'first-class boy'. But the day's operations marked the unmistakeable transfer of the air war initiative to Pakistan. For Air Vice Marshal Nur Khan, the virtual guarantee of air superiority came as 'a tremendous feeling of relief'. Only at Sargodha, after the bustle of the returning airfield strike elements was over, did the station commander see the lone survivor of the Halwara raid as the confirmation of his worst fears and as a disheartening end to the first day of war. One of the earliest lessons to be learnt by the PAF was that in a small and closely knit air force, casualties are felt almost as keenly and as personally as in a family.

Amritsar Radar

After the front-line IAF airfields, the highest priority target was the elusive high-powered GCI radar at Amritsar, which was scheduled to be attacked at the same time. One of the many problems facing the PAF was that the location of Amritsar Radar, whose call-sign, 'Fishoil', was well-known to Pakistan air intelligence staffs, could not be determined to within less than about five miles. This, of course, was not nearly good enough for a pinpoint attack. The monitoring of Indian radar and its daily surveillance to determine the position of its mobile sites was one of the main tasks of No 24 Squadron at Peshawar with its two specially-equipped RB-57Bs and single high-altitude RB-57F or 'Droopy'.

This special ELINT (Electronic Intelligence) squadron was also allocated the job of low-level homing on to enemy radar installations. Another task was to monitor and jam the Indian aircraft VHF radio channels, particularly those employed by the IAF GCI (Ground Controlled Interception) stations for directing the movements of their fighters. The RB-57F of No 24 Squadron had been used during the Pathankot raid to intercept enemy GCI transmissions and send out spurious orders in an attempt to persuade the IAF fighters to return to their Adampur base. Indian RT transmissions were also jammed by the RB-57F, which informed the PAF GCI Controller of enemy aircraft movements. The RT monitoring was facilitated by the fact that both the PAF and the IAF use English as a common language for all orders and transmissions in the air.

For the first Amritsar strike, at dusk on 6 September, four F-86s led by Wg Cdr Mohammad Shamim took off

from Sargodha at 17.40hrs, in company with an RB-57B flown by Sqn Ldr Rashid. The plan was for the RB-57B to home on the radar transmissions of the Indian 'Fishoil' station, and so lead the Sabres to its location for an attack. Just as the formation reached Wazirabad, however, the special electronic equipment in the RB-57B became unserviceable, so the mission had to be abandoned.

As it happened, Sqn Ldr Iqbal was airborne from Peshawar in the other RB-57B. Wg Cdr Shamim therefore led his Sabre force in a rendezvous with the ELINT aircraft, after the F-86s had refuelled at Sargodha, for another crack at Amritsar in near darkness. Once again the attack was frustrated, this time by the intense flak with which the Indians had ringed their radar site, and which knocked out one of the RB-57B's engines over the target. While Sqn Ldr Iqbal nursed his ELINT aircraft back to base on its remaining engine, the Sabres again had to abort as they were unable to find their target without homing help.

Other Radar and Airfield Targets

To complete the overall initial strike plan, four Lockheed T-33 armed jet trainers from Sargodha were due to attack Ferozpur Radar, while a Mauripur force of eight F-86s and four T-33s were scheduled to strafe Jamnagar airfield and Porbunder Radar in the central sector. As with Amritsar, the Indian radar installations at Ferozpur and Porbunder proved equally elusive, there being some doubt, in fact, whether the latter ever existed. Ferozpur was a mobile TPSY-1D installation of less power and range than that at Amritsar, with only early-warning coverage and lacking GCI facilities.

Two lightly-armed improvised T-33 fighters were all that could be spared for each of these subsidiary strikes, but were considered adequate for the sparsely defended secondary targets. All the T-33s got away on time, but had no better luck in finding their radar sites. In the south, the two Mauripur T-33s turned their attention to the IAF airfield at Bhuj, alleged to house a bombing aid, as an alternative target. No worthwhile targets were visible, but the T-33s nevertheless emptied their guns into the airfield area.

As the final fragment of the air strike jigsaw, the planned attack on Jamnagar airfield from Mauripur failed to materialise at all, simply because the PAF ran completely out of resources. After the demands of the Sargodha strike force had been met, Mauripur was left with only about a dozen Sabres, including several which were unserviceable. From this meagre force, four F-86s were earmarked for continuous availability on any close support missions, while others had to be kept in reserve for the vital air defence commitments.

Finally, even had the aircraft been available to reach Jamnagar they required the installation of two extra drop tanks, in addition to the two wing fuel tanks normally carried. Since the strike mission order for Jamnagar was received only at 14.30hrs, there was insufficient time, in any case, for any aircraft to be prepared for such long-range operations. Jamnagar was therefore shifted to the list of night targets which the PAF now prepared to attack to maintain its relentless pressure on the forward installations of the Indian air force.

12. The PAF begins its Night War

Having initiated, with mixed success, its strike plan against the IAF airfields during daylight on 6 September, the PAF was committed to maintaining the pressure against the forward enemy bases to minimise the inevitable retaliation on the following day. For night operations, the B-57 force was to come into its own, in compensation for its vulnerability by day. Grp Capt Dogar was therefore directed to launch a series of B-57 strikes against Pathankot, Adampur and Halwara, beginning just after midnight and continuing until 04.30hrs on 7 September using bombs, rockets and guns, and with the aid of flares.

No 31 (Bomber) Wing had been on a semi-alert status since the time of the Kashmir crisis in late August, when officers on training courses, leave and other detachments rejoined Nos 7 and 8 Squadrons at Mauripur. It was originally intended to operate the B-57s only from Mauripur, but the C-in-C soon realised that this would involve a tremendous amount of non-productive flying. On the night of 2 September therefore, four B-57s under the command of Wg Cdr N. Latif were sent up to Peshawar to stand by for operations and, as hostilities escalated, a further 10 of the 22 bombers in the wing followed on 4 September. Before leaving Mauripur, the B-57s were loaded with their maximum possible armament, which comprised four 1,000lb bombs in the fuselage weapons bay, plus a further four 750lb weapons carried in the wing pylons, or 7,000lb in all. With this load, the B-57 is well above its normal permissible gross weight, resulting in a very long take-off run, but this limitation was virtually disregarded by the PAF. For its strike/interdiction role, the B-57B also carries four 20mm cannon in the wings, with a total of 800 rounds, but its basic role remains bombing, and only a fixed sight is provided for the guns.

About two years before the war with India, the PAF B-57s had been provided by the US Military Assistance Advisory Group in Pakistan with the RB-1A radar

bombsights, which were installed with American help by about May 1965. Not all the PAF bomber crews had attained the necessary proficiency to qualify with this fairly sophisticated equipment, which in any case was mainly intended for use at high altitude with nuclear weapons. The RB-1A radar has a secondary navigational function by indicating the topography about 15 miles ahead but it has only a small scope presentation with a relatively narrow scan and suffers from clutter near the ground. For the essentially low level PAF bomber role against enemy airfields the RB-1A was therefore of very limited value, and most targets had to be found by the time-honoured but still very difficult art of map-reading. This, of course, is particularly tricky at night and at little more than tree-top altitudes where no position fixing assistance can be expected from one's own GCI controllers.

Having arrived at Peshawar without any personal baggage, bomb hoists and so on, and with no idea of their intended length of stay, the bomber crews were briefed to attack the runways of the IAF forward airfields on the night of 6/7 September in streams of four aircraft for each target. Take-off was to be at five minute intervals for the maximum disruption of enemy activities. Attacks were to be by shallow dive-bombing, from a pull-up to 12,000ft, using the fixed sight to deliver the bombs and pull out not below 6,000ft to avoid the light flak around the airfields. This was intended to minimise PAF losses from ground fire during the airfield offensive. Maximum cruise of 360 knots was to be used for the low-level sections of the mission profile, which for flight-planning resulted in the useful airspeed of six nautical miles per minute. When exiting after up to 30 minutes over the target, full power was specified to boost maximum speed to 400 knots or more.

Before the implementation of the night plan, however, there was a dusk prelude by the B-57s. This was a result of the earlier failure to get sufficient Sabres together to



Above: As a follow-up to the partly-successful Sabre strikes against the IAF's advanced air bases on 6 September, the PAF bomber force of Martin B-57 Canberras began a night offensive against these and other targets. Some of the B-57s of No 31 (Bomber) Wing are seen here lined up at Mauripur before the 1965 war during a cartridge start by two of their number.

Right: After the outbreak of hostilities with India in 1965, half the PAF's B-57 force was detached from Mauripur to Peshawar under the command of Wg Cdr Nazir Latif.



attack Jamnagar airfield, south-east of Karachi in the Kutch area. When this B-57 strike was signalled, at 16.30hrs on 6 September, the six remaining bombers at Mauripur, under Wg Cdr Qureshi, were about to take-off for Peshawar to join the rest of their squadron. Only 20 minutes were available to brief the six crews for the first B-57 attack of the war, but thanks to previously prepared target folders, flight plans and performance tables, all the aircraft were ready for take-off from Mauripur by 17.00hrs. Armament comprised four 1,000lb GP bombs per aircraft, carried internally, plus a full load of 56 rockets under the wing stations. The rockets had been loaded earlier, and could not be changed in the time available for additional bombs.

For once, low-level navigation presented no problem. From Mauripur, the two sections of three B-57s each simply headed south down the coast, flying first at about 200ft, and then just skimming the shoreline as they penetrated into Indian territory. An additional fix was provided by the flashes from the Mandvi lighthouse, just four minutes out from Jamnagar, across the Gulf of Kutch. A mile short of the airfield, the B-57s pulled up into a steep climb, towards the dusk sky, and each delivered its 4,000lb of bombs into the target area. For good measure, Wg Cdr Qureshi also launched his rockets into a hangar which promptly caught fire. All the B-57s returned safely to Mauripur having encountered neither fighters nor flak.

Single B-57s from Mauripur then continued harassing raids against Jamnagar throughout the night, some crews flying as many as three missions in a period of nine hours. One such crew — Sqn Ldr Shabbir Alam Siddiqui, and his navigator, Sqn Ldr Aslam Qureshi — failed to return from Jamnagar and were eventually presumed lost. No details of their fate have emerged, but the combination of low cloud at a later stage over the target area, plus the cumulative fatigue resulting from three operational sorties may have caused them to fly into the ground. No PAF bomber crew was subsequently allowed to do more than a couple of missions per night.

Postwar photographic intelligence showed that at least 15 bombs landed inside the airfield complex at Jamnagar, destroying two Vampires on the Operational Readiness Platform and several hangars and workshops in the technical area, as well as cratering the runway. The main value of the Jamnagar strikes, however, may well have been to disrupt its operational activities through continual air raid alerts, with an accompanying loss of efficiency among its personnel through constant interruptions to their rest.

Next on the night bombing target list was Adampur, which was allocated to a force of four B-57s at Peshawar, with a TOT of 17.30hrs on 6 September. Sqn Ldr (now Wg Cdr) Najeeb Ahmed Khan, the CO of No 7 Squadron, had only just arrived at Peshawar with his section of B-57s when he learned of this target, and again had only a few minutes to prepare for the mission and brief his three additional crews. Before leaving Mauripur, the B-57s had each received 4,000lb of bombs in their internal fuselage bays, but the wing stations were to have been loaded at Peshawar. With only 30 minutes separating the arrival of the B-57s at Peshawar at 17.00hrs and their planned TOT, there was insufficient

time for the external bombs to be fitted, thus halving the warload of each aircraft. And while there was some flexibility over the precise TOT, a sufficient margin had to be allowed to refuel and rearm the aircraft for a later strike. Theatre was also concerned about the vulnerability to enemy air action of so many aircraft packed together on the PAF forward bases at dusk. As it happened, however, it was 18.40hrs before these B-57s took off, for a revised TOT of 19.20hrs.

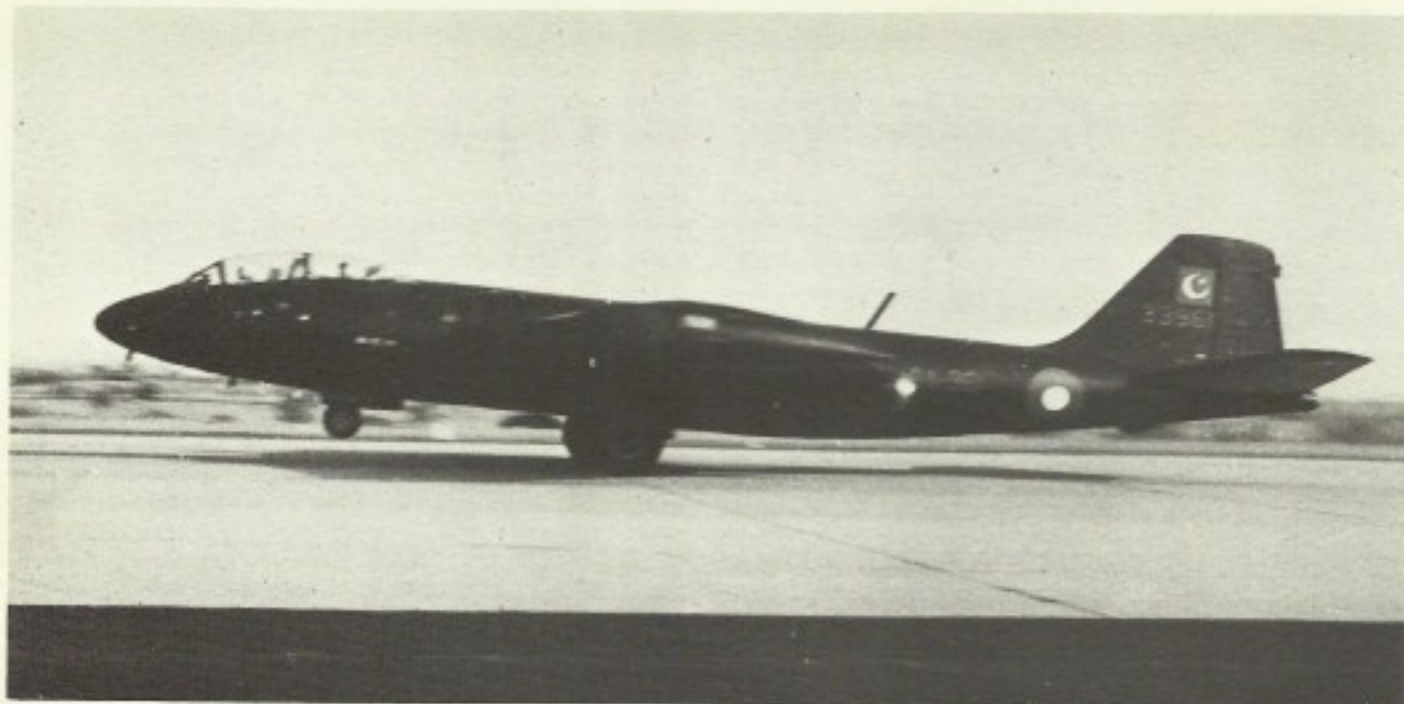
Despite the problems of low-level map reading in complete darkness, all four B-57s found the target without undue difficulty. This was probably partly due to the fact that when Sqn Ldr Najeeb reached Adampur, all the runway lights were still on. After the first attack, further light was added to the scene by intensive anti-aircraft fire and bomb strikes by the No 2 B-57 on parked and fuelled aircraft, and all the PAF bombers delivered their loads in the airfield area. The runway lights, incidentally, stayed on throughout the first attacks, which resulted in at least five aircraft being seen burning on the ground. No casualties were incurred by the attacking force, although one B-57 had its port wing pierced by a 40mm Bofors shell, while another developed a hydraulic leak during the return flight.

The four B-57s landed back at Peshawar by 21.00hrs to find a milling mass of aircraft, including Lockheed C-130s, Lockheed F-104s, Sabres, B-57s and Harvards all being prepared for their own various operations. It seemed miraculous that order could emerge from such apparent chaos, but this was the case thanks to the tireless efforts of the dedicated ground crews.

The non-stop nature of the PAF airfield offensive was indicated by the fact that, as the Adampur strike force was landing back at Peshawar, the four B-57s passed another section of bombers taking off for a follow-up strike against Pathankot. The outgoing B-57s were led by Wg Cdr Mahmood Akhtar, then operations officer of No 31 Wing, who recalls the main details of this typical bomber mission:

'The operations signal specified four aircraft, but as five were available, I took them all. The disused PAF airfield at Pasrur was our IP (Initial Point for the run-in to the target) and as we crossed the border, flying at between 250-500ft above the ground, we checked armament switches on and navigation lights off. The last remaining job was to open the bomb doors, which was to be done at the point of pull-up. There was a newish moon giving a faint light, but visibility was not bad. The Indian blackout was quite good, even in the villages, and all was quiet.

'There was no sign of the fires from the earlier Sabre strike. In fact, I might have missed the target altogether or at least spent a long time looking for it, had we not suddenly seen the airfield beacon at Pathankot blinking away. Some Indian had been kind enough to leave it on to give us a precise pinpoint. I called on the RT "Pulling up now", but as I was fairly close to the airfield, I did not get much above 7,000ft. As I rolled into my dive, the pundit (beacon) was still flashing, but the enemy must have finally heard us because he opened up with everything he had. This was a great help, in fact, because everything was lit up, and I could see the runway quite clearly. I had never seen ack-ack before, and especially at night, but it looked to me to be very, very concentrated. I later



Above and right: Some two years before the war with India, all PAF B-57s had been fitted with RB-1A radar bombsights, housed in an extended nose-cone. The change in nose contours is apparent from these two views of PAF B-57Bs before and after installation of the RB-1A. This aid, intended mainly for use at high-altitudes with nuclear weapons, came in for little use in 1965, although it had a secondary navigational function for ground-mapping.

Bottom right: The PAF crew climb aboard their Martin B-7B Canberra for a training exercise before the 1965 war.



attacked all the Indian airfields in our area of operations, but the biggest concentration of ground defences were undoubtedly at Pathankot, Adampur and Halwara.

'But when you are making your attack, you are too busy to bother too much about the ground fire. You are looking through the sight, and are only half aware of the gun flashes, despite their brilliance. At night it is a fairly spectacular affair, but you don't have time to worry about it. Once you are in it, you are in it — that's all there is to it.

'I aimed along the runway towards its centre, so I would hit it whether I overshot or undershot. I released my bombs at about 3,000ft, and it was a successful attack in that all eight of them went away the very first time. From there, I didn't pull up. I carried on diving from about 360 knots to exit low-level at around 400 knots, but I didn't have time to see the effects of my bombs. Despite the intensity of the ack-ack, none of us suffered any hits, and as far as I know only one B-57 was shot down by ground fire during the war, at Adampur. Nobody took any notice of the height restrictions for bombing — all the crews wanted to be as accurate as possible with their attacks, and we didn't bother about the ack-ack.

'When we got back to Peshawar, I compiled the after-mission report for station operations. Only one attack was declared unsuccessful, and this was by my No 2, who



Left: Sqn Ldr (later Wg Cdr) Najeeb Ahmed Khan, CO of No 7 Squadron, who was awarded the Sitara-e-Jurat for his B-57 operations and leadership in the 1965 war.

had failed to find the target and had bombed blind on dead reckoning. Our troops intercepted an enemy radio message in the early hours of the morning which said, "Pathankot burning — immediate help needed." This established the pattern of B-57 night strikes, which continued with slightly longer and irregular intervals — around 15-20 minutes — between take-offs, to keep the enemy airfields under attack for a much longer period. I think this certainly did result in reducing the amount of fighter-support which the IAF was able to give to the Indian Army. You can imagine an airfield constantly under attack throughout the night — they can't recover any aircraft while they're sitting in trenches. Naturally the effort available next morning would be considerably reduced.

'One of the strangest things was that throughout the war, so few B-57 pilots ever saw an Indian fighter at night. Even if you don't have any real night fighter capability, you have your own aeroplanes up. I think it's a big deterrent for a bomber pilot to know that there are enemy fighters around. It would certainly cut down the amount of time you could spend hanging around a target.'

But even without enemy night fighters, the PAF bomber crews were left with quite enough opposition from intensive ground fire, as well as the natural hazards of darkness, fatigue from repeated operations, and bad weather. It was weather which defeated an earlier attempt that evening to strike Halwara airfield with three B-57s, leaving only a single bomber, flown by Flt Lt Alvi, available to make a final pre-dawn strike as a last resort. This crew had previously manned the fifth B-57 in the Pathankot strike, having failed to get off the ground for an earlier mission, but had landed back at Peshawar instead of Mauripur. Because of the congestion at Peshawar, the B-57 could not be turned around to take-off for its next sortie until 03.40hrs, which took it perilously close to daylight. Its crew made their lone way successfully to Halwara, however, and dumped their bombs in the centre of the airfield, before returning safely to Samungli, just outside Quetta. This new airfield was being used to relieve the congestion at Peshawar, which by then was beginning to receive some attention from the IAF.

PAF bomber activities that night were completed by a final strike from the four B-57s led by Sqn Ldr Najeeb Khan. For their second sortie of the night, this section was given the task of destroying an important bridge across the River Beas, between Adampur and Amritsar, to cut a vital supply route for the Indian Army. Unlike the Indian airfields, this was a precision target presenting many difficulties for a successful night attack, and it was more with hope than expectation that the four B-57s took off from Peshawar at about 04.00hrs on 7 September.

Nevertheless, all the PAF aircraft found the target, which was heavily defended by Indian flak batteries, and each B-57 delivered its seven 1,000lb bombs in shallow dive attacks. It was not possible to assess the results of this strike, since the B-57s then had no night reconnaissance capability, but all four aircraft returned safely to their relief base at Samungli.

Thus ended the first night's operations by the B-57 wing, which had been fully extended and had attacked all its targets for the loss of only one aircraft. The success of the runway strike strategy remained to be seen, but at least the B-57 crews had established a viable *modus operandi*, and having taken the measure of the Indian defences, remained unimpressed.

The Commando Assault

Bomber strikes comprised only part — albeit a major one — of the PAF airfield attack plan. At the time of the Rann of Kutch dispute in 1965, the possibility of air assault operations, against the IAF bases and other installations involving paratroops, had been discussed between the PAF and the Pakistan Army. Prominent among the list of targets given high priority by the PAF were the main Indian air bases with their aircraft, pilots and other facilities, together with radar control and



detection units. Using its big Lockheed C-130 freighters in their air assault role, the PAF proposed either dropping specially trained paratroops near their targets under cover of darkness, or landing at disused airfields in India. A third alternative submitted for consideration was for the C-130s to land their assault troops at night on the actual airfields comprising their targets, and to rely on surprise to complete the attacks.

The air assault plan also envisaged small sabotage parties of three or four troops being landed near their targets, over shorter ranges, by helicopter. In the general spirit of optimism characterising the assault plan, the problem of recovering the raiding parties was somewhat cursorily dismissed by the proposal to despatch C-130s or helicopters to pre-planned rendezvous. 'Under certain circumstances,' continued the plan, with a bland disregard for enemy counter-action, 'the C-130, guarded by an adequate number of SSG (Special Service Group) troops, could wait for the completion of the mission and then bring back the entire party.'

With these reassurances, PakArmy agreement was obtained regarding enemy aircraft and radar units as priority targets, for assault up to 400 miles behind the international border. The Army did acknowledge, however, that if air recovery was not practical, this distance would have to be drastically reduced to as little as 20-30 miles, from which it was airily assumed that the troops 'could walk back in a few hours'. Carefully selected soldiers had undergone highly specialised training for the para-commando tasks, under the control of PakArmy GHQ, but their targets were provided by the PAF. Because of the sensitivity of these proposed

Above: The PAF offensive against Indian air bases included assaults by 60 para-commandos each on Adampur, Halwara and Pathankot, dropped at night from three Lockheed C-130Bs of No 6 Squadron. No provision was made for recovery of the Pakistani paratroops, most of whom were killed or captured and failed to reach their objectives.

operations, which were given a 'strategic' designation, setting them apart from the normal war plans, they were classified above the level of individual service HQ, and were directed by the C-in-C PAF himself. Their organisation, however, was delegated to the Director of Intelligence, Grp Capt Dogar.

The implementation, on 6 September, of the IAF airfield strike plan included the air assault element, which was allocated the now-familiar trio of advanced enemy air bases at Adampur, Halwara and Pathankot as targets. Each strike team comprised 60 para-commandos who had rehearsed their tasks together, and were supposedly familiar with their objectives. The final plan was for them to be dropped close to their targets by three Lockheed C-130Bs from No 6 Squadron, and then to assemble in their individual teams for the assault on the airfields.

Once inside the airfield boundaries, they were expected to destroy aircraft, kill enemy personnel (and especially aircrew), blow up fuel pumps and storm other vulnerable points. The paratroops were assured by the PAF that if they could capture the airfields the C-130 crews would do their best to land back and pick them up. Under the circumstances, this was to prove unlikely, to say the least,



but the para-commando teams uncomplainingly accepted the fact that they would probably have to fight their way back on foot through 60-70 miles of hostile territory, if they were to return at all. It is difficult, in fact, to avoid the conclusion that the air assault raids were nothing less than suicide missions, but in the mood then prevailing in Pakistan, most fighting men considered their own lives of secondary importance to the need for national survival.

Unfortunately, the sacrifices of some of the para-commandos were to prove in vain because the operations got off on the wrong foot from the very beginning. The planning and the operational staff work carried out at the Special Service Group Headquarters, under Lt-Col Martin, the officiating commander, and his principal staff officer, Major E. H. Dar, were offset by difficulties which tended to preclude any chances of success that the commandos may have had. Although this operation had been pre-planned and troops had been rehearsed for the operation, a large number were employed in the Pakistan Army operations in Kashmir and many personnel detailed on 6 September had not received the special training required by the air assault teams. The shortage of trained personnel was further aggravated since some of them were on leave and had not been recalled.

The mission briefing was alarmingly inadequate. Many of the maps and air photographs used were out of date and inaccurate. One of the attacking units was given maps and photographs only a few minutes before the delayed take-off.

Organisation of the commando teams into smaller sub-teams for dealing with specific points on the objective was not completed, and loads of essential equipment were so

badly subdivided that the absence of one man prevented a number of others from using their equipment.

To coordinate with the bomber strikes of the PAF on the IAF airfields, the three C-130s positioned at Peshawar were given a TOT of midnight on the night 6/7 September, and the bombing campaign was suspended for three hours. The C-130s were ready to go at 20.00hrs, but the commandos were late in arriving from Cherat and take-off twice had to be postponed. When the commandos did arrive at Peshawar, it was discovered that they had not been provided with Indian currency which virtually precluded any question of their being able to work their way back to Pakistan if recovery could not be effected. To remedy this deficiency, valuable time had to be spent collecting Indian currency from the PAF aircrews who carried it as standard survival equipment.

All these delays further minimised the chances of success by reducing the period of darkness available for the operations and for the troops to begin their withdrawal well before dawn, but the TOT was finally set at 02.10hrs. No problems were experienced by the C-130 crews, after crossing the border at very low altitudes, in finding the scheduled dropping zones (DZs), which were about two miles away from the airfields, but most of the paracommandos ran into difficulties immediately after landing.

At Pathankot the commandos landed amongst a network of canals close to the main highway to Jammu. Because of the dispersion and the nature of the area in which they landed, the force was not able to assemble into more than a few isolated groups and the force

commander was not able to gain control over his unit. The Indians immediately reacted, halted a troop convoy moving on the Jammu highway to take part in the planned Indian armoured division attack in the Sialkot area on 8 September, and used the troops to search for the 60 commandos who had landed in this area. When the Indian division resumed its move, in daylight, it was subjected to heavy attacks by the PAF and was not identified in action till after the cease-fire. Out of the 60 commandos dropped in the Pathankot area approximately 10 men worked their way back to Pakistan while the rest were captured or killed.

At Adampur, the commandos, well led by Capt Durrani, were able to assemble after landing and made their way to the airbase, although only half-an-hour's darkness remained before the dawn. On reaching the outer perimeter of the airbase it was found that, due to faulty briefing and possibly a small error in the drop, the attacking commandos were in the domestic area instead of the aircraft dispersal area. With the coming of daylight, the ground forces of the air base were at full alert and Capt Durrani, therefore, decided to call off the attack and lie up for the day. Indian ground forces soon surrounded the commandos, however, and brought them under mortar fire. After a day long fight the commandos dispersed and started infiltrating back to Pakistan, but the whole force was captured or killed after being hunted down by Indian forces. These included supporting light aircraft, jeeps and armoured cars, civil police, dogs and even villagers armed with shotguns, lances and Kirpans. Some of the commandos, including Captain Durrani, were trapped in the junction of the Beas and Sutlej rivers but were only successfully hunted down by the enemy forces after 10 days on Indian territory.

At Halwara the commandos landed on a large village. Because of the buildings and the dispersion caused by the drop they were not able to assemble and take coordinated action. Several small parties made their way to the airfield but the attack did not develop due to the lack of direction. The attacking party dispersed and all, like the others, were killed or captured apart from Capt Hasnain and two other ranks. These commandos captured an IAF jeep with two other ranks and drove to Attari, on the Sutlej river, where they crossed the front line into Pakistan.

The PAF's attempt to cripple the IAF on the ground by commando assault failed completely. As the official PAF report on the operation commented:

'Their capture was inevitable, but none was lightly taken. They fought until they fell, or until their ammunition was exhausted. Many were bayoneted. Some were taken prisoner. Those who remained undiscovered attempted the mission and tried to get to Pakistan. A few remained hidden for as long as 10 days, living on sugarcane, maize and even grass before they were caught. A few managed to get back safely home. The human performance was magnificent, but alas it was not war ...'

Thus ended an operation which on the face of it was an unmitigated disaster. Certainly the cost in lives of the heroic para-commandos, who embarked on their perilous mission with a memorably cheerful calm, was difficult to justify. Nevertheless, ill-conceived, ill-planned, badly-executed and based on faulty intelligence though these

raids were, they caused a considerable diversion of Indian military effort, a high degree of panic and confusion among the civil and military authorities, and, according to a postwar admission by the IAF C-in-C, the complete evacuation on the following day of one of the target airfields. All its aircraft were withdrawn to Ambala.

The PAF is still convinced that operations by special service groups have a place in future military plans, but their direction calls for a very careful appreciation of all the factors involved if worthwhile results are to be achieved. In particular, special attention must be paid to the problems of recovery, if SSG operations are to be militarily viable, and the para-commandos require to be dropped on rather than near their targets.

Following its own experience with special service groups, Pakistan was particularly sensitive to similar action on the part of India. This attitude undoubtedly helped to account for the mythical invasion of PAF air bases by enemy paratroops on the night of 8 September. This battle that never was resulted in a general alert being broadcast on Radio Pakistan and culminated in a full-scale engagement at Sargodha between PAF and PakArmy forces who spent no less than three hours firing at each other in the dark.

The great paratroop mystery apparently started with the discovery by the civilian authorities around the main PAF air bases of the small parachutes used by the IAF to drop flares. Rumours built up to the point where the Military Secretary at Lahore telephoned Air HQ and reported that he had seen enemy paratroops landing with his own eyes. Curiously enough, the rumours appeared to have originated simultaneously from several widely scattered points. Indian paratroops were reported to have been rounded up at Chaklala (Rawalpindi) as well as Peshawar University, while unidentified radar plots near Melir in the Karachi area tracked at 140-150 knots for about half-an-hour also contributed to the para-commando scare. Air Cdre Shah was reported elsewhere to have tracked mysterious lights and beacons from a light aircraft.

So positive were the invasion rumours from Sargodha, where Wg Cdr Karim reported to Air HQ that hand-to-hand fighting was going on in the hangars, that all the defence forces at the PAF airfields were stood to, and a battalion of PakArmy Scouts were hurriedly embarked in a C-130 at Peshawar to provide reinforcements. Flying into Sargodha without lights, to avoid becoming a target, the C-130 deplaned its troops on to the runway and took straight off again to get out of the battle zone. As the PakArmy Scouts tumbled out of the C-130, a shot was fired from the airfield perimeter, probably by a nervous sentry, and was immediately returned by the troops as they took up defensive positions. In no time at all, both sides were blazing away, and it was three hours before order could be restored. Miraculously, no one was hurt, since there was no indication of any real target.

Not a single Indian paratroop proved to have been captured, mainly because not one had been dropped. Many were the red faces when the rumours were eventually dispelled, but the instant action which they initiated was a symptom of the strength of the national will at that time towards survival. Better, in other words, safe than sorry.

13. The IAF Hits Back

Retaliation apart, there were sound tactical reasons for the IAF to mount an airfield offensive of its own. Despite the most strenuous efforts on the part of all PAF personnel, the first strikes by Pakistan were obviously far from decisive. India was free to use its overwhelming numerical superiority in the air by concentrating anything up to a couple of hundred aircraft to attack the PAF's most forward airfield at Sargodha. Having wiped that out, the IAF could then have moved on at its leisure to deal similarly with Peshawar and Mauripur. And that would have been the end of the PAF and probably of Pakistan.

There is an obvious parallel between the Pakistani situation and the Battle of Britain in 1940. Just as the Luftwaffe had to defeat the RAF before the invasion of Britain became possible, the IAF had to gain air superiority to win the land battle, and 7 September was the critical day.

IAF counter-attacks, which continued at night almost continually until 23 September, actually started around midnight on 6 September, when a stream of Canberras from the rear airfield at Agra began penetrating into the north of West Pakistan from the direction of Lahore, flying at a height of about 30,000ft. No fewer than 14 were detected by Sakesar from about 200nm out up to 01.20hrs, making for the capital at Rawalpindi and also fanning out towards Peshawar. For its night defence, the PAF was using both F-86s and F-104s to augment the anti-aircraft batteries, although only the Starfighter, with its AN/ASG-14T1 radar-equipped fire-control system, had any real night and bad-weather interception capability. The Sabres were dependent on visual and missile contact to engage the enemy — no mean feat at night, despite interception directions from the GCI controller — but the F-104 pilots of No 9 Squadron had undergone limited training for high-altitude night fighting, using their fire control radar.

Three Starfighters were scrambled from Sargodha to intercept the Canberras, and were quickly positioned by

Sakesar for the usual overhauling interception from the rear. On each occasion, however, violent evasive action by the Canberras prevented AI (Airborne Interception) radar contact from being established, which caused some concern to the PAF. It was later established by the B-57 ELINT aircraft that the Canberras were very closely controlled by Amritsar radar, which warned them whenever an F-104 was in their vicinity. The IAF Canberras also had their own tail warning radar which gave an alarm signal when the bombers were being chased.

This first IAF Canberra raid was a fairly aimless affair, and although bombs were dropped near Rawalpindi and Sargodha, they landed well away from any military targets. It was fortunate that the attack on Peshawar did not materialise, since the airfield was bursting at the seams with aircraft. Even a stray bomb would have disrupted the whole complex of strike and paratroop operations. Over Kushalgarh, the Canberras withdrew for no apparent reason and headed towards Sargodha, but no attack was made against the airfield and the IAF bombers flew back into India.

These Canberra sorties therefore had absolutely no effect on retarding the PAF strike effort, although another IAF attack developed just before dawn in the Mauripur area. About three Canberras were believed to have been involved, probably from the IAF base at Poona, but once again no bombs were dropped on military installations and most fell in the sea. Anti-aircraft defences from Mauripur engaged the Indian Canberras, and provided a beacon for one of the PAF B-57s returning from its second strike against Jamnagar. Two F-86s were also scrambled from Mauripur to intercept the Canberras, but one crashed shortly after take-off, killing the pilot, Flg Off Sikandar Azam. The cause of this accident was never firmly established, but was probably connected with the normal hazards of flying a high-performance single-seat fighter at night under combat





conditions. This was the second loss to be experienced by the Mauripur squadrons during the first night of the full-scale war with India, involving the deaths of all three crew members in the F-86 and B-57.

Even before first light on the morning of 7 September, PAF fighters were airborne on Combat Air Patrols (CAPs) in anticipation of retaliatory strikes by the IAF. They did not have long to wait. At Sargodha, there was little doubt that this forward base would receive the bulk of the IAF offensive during the day, but the station commander, Grp Capt (later Air Cdre) M. Zafar Masud, recalls that the main reaction was a burning desire on the part of all ranks to get to grips with the enemy to avenge the deaths of two highly popular officers on the previous evening.

At about 05.30hrs, shortly before sunrise, the radar at Rahwali picked up some unidentified aircraft, which were also reported by the mobile observer units in the outer and centre defence belts. These extended in arcs of about 240 and 105nm radius respectively from Sargodha, with an inner belt at about 35nm, some 90 miles in width, but the Sector Operations Centre confused their plots with the two Sabres and one F-104 flying CAP from Sargodha. The plots were therefore not labelled 'X' for enemy in the SOC, and were also not picked up by the observers in the inner belt, so no action was taken to alert the Pakistani defences.

This is how the six IAF Mystères came to pull up to about 1,500 into the half-light of dawn, as already recounted in Chapter 1, to find Sargodha sprawling beneath them entirely at their mercy. Grp Capt Masud said:

'The first we knew about the raid was when we heard the thunder of rockets followed by the stutter of cannon. We had about 80 aircraft dispersed around the airfield, although most of them were so well camouflaged they were difficult to see, even from as low as 1,000ft. But there were four F-86s and two F-104s lined up on the Operational Readiness Platform (ORP) at the end of the runway that were absolute sitting ducks. After prolonged discussions immediately before the war, we had decided to keep a few aircraft on the ORP instead of in their protected pens, to gain a few extra minutes when they were scrambled for take-off. Normally, of course, they would immediately get airborne on receipt of a raid warning, but with a surprise attack, they were completely exposed.'

And with this unrivalled opportunity confronting them, the Mystère pilots threw the whole thing away by making a single half-hearted formation pass. All they hit in the process was one of the dummy Starfighters which had been thoughtfully placed at the far end of the runway from the ORP, and which dutifully caught fire. Dummy Starfighters had been deployed at Sargodha since the Rann of Kutch days, and their wooden airframes had been given aluminium foil skins for greater realism.

Left: Because of their AN/ASG-14T1 radar fire-control system, the F-104A Starfighters of No 9 Squadron were the only PAF aircraft suitable for night- and all-weather interception, and were pressed into such service in 1965 to counter marauding Canberras of the IAF. For interception, their wing-tip tanks, seen fitted here, were exchanged for a pair of Sidewinder air-to-air missiles.

Additional mock-ups of F-86s and B-57s were used by the PAF at Sargodha and the other operational air bases, and with their full-scale three-dimensional airframes were far more deceptive than the silhouettes with asymmetric wings placed flat on the ground at such Indian airfields as Adampur.

As previously recounted, one Mystère was shot down by the Sargodha light anti-aircraft defences as the formation made its exit towards the south-west at low level. Flt Lt Amjad Husain, who had scrambled at about 05.15hrs in an F-104, was directed by Sakesar towards Sargodha, where he made visual contact with the IAF Mystères after seeing the sky lit up by the PAF ground defences. By the time he caught up with them, the Indian aircraft were 6-8 miles away from Sargodha, flying at 150-200ft on a south-easterly heading towards India.

As the Mystères jettisoned their drop tanks, Flt Lt Husain positioned himself behind one of them and released a GAR-8 missile, which went straight into the ground. By that time the F-104 was within gun range, and a brief burst from the six-barrelled 20mm Vulcan cannon did the rest.

A second Mystère then began to dogfight with the Starfighter, which used its superior climb and acceleration to lift the combat from ground level to about 7,000ft, to gain room to manoeuvre. In staying with the F-104, the Mystère pilot showed commendable courage, and gained an advantage when Flt Lt Husain made the mistake of reducing speed in an attempt to out-turn his determined opponent.

Below: One of the original batch of 71 Canberra B(I)58s ordered by the Indian Air Force photographed in the UK before delivery. In night raids against Pakistan, the IAF Canberras usually carried a single 4,000lb 'blockbuster' bomb of World War II vintage, plus a belly pack of four 20mm cannon.

The F-104 pilot also failed to clear his tail during the dogfight with the Mystère which pressed home its attack and scored several cannon strikes on the Starfighter. Flt Lt Husain found that his elevator control had frozen while in a steep bank only a few hundred feet above the ground. With lightning reflexes he reached down and yanked the D-ring handle on the front of his Lockheed C-2 rocket ejection seat. Initially this had no result as he had failed to actuate the seat-arming mechanism, but, after hurriedly rectifying the situation, his cockpit canopy was automatically jettisoned and he was fired clear of the stricken aircraft three-tenths of a second later. In another second he was tipped out of the rocket-propelled seat by the automatic separation mechanism and his parachute popped open just before his feet hit the ground. This was the first and only Mach 2 Starfighter to be lost through enemy action in the 1965 war.

Returning to Sargodha successively by horse, jeep and helicopter, Flt Lt Husain thus lived to fight again, but the PAF later obtained the personal details of at least three IAF Mystère pilots who were killed in air combat over Pakistan on 7 September. From their ranks — two were squadron leaders (Jasbeer Singh, and A. B. Deveyya) and one a flight lieutenant (B. Guha) — all were evidently officers of considerable experience. But, even had they been junior personnel, a 50% mission loss-rate could not long be endured by the IAF, or any other air force for that matter.

One PAF aircraft had borne the brunt of this brief engagement and had put to flight five times the number of enemy fighters. The two F-86s on CAP over Rahwali were vectored towards the combat area by Sakesar, but could not join battle since they were low on fuel. In fact they were only just able to reach the emergency landing strip at Bhagtanwala.





No sooner was the excitement of the first raid over than warning was received from all three observer belts of five, and then six Hunters heading at low level towards Sargodha. This time the PAF was fully prepared, and four F-86s and one F-104 had been scrambled on CAP immediately after the first attack. From the first warning from the outer belt at 05.51hrs, Sargodha had 14 minutes to prepare for action before the inner belt reported the Hunters overhead at 06.05hrs. 'Killer Control' was soon reporting four Hunters pulling up for attack, but despite the long period of warning, the IAF aircraft were not intercepted until they reached Sargodha.

The Hunters were greeted with a veritable curtain of ground fire, however, and made no attempt to press home their attacks. Some were even reported to have fired their cannon aimlessly in level flight. It was at this point that Sqn Ldr Alam dived his section from 15,000ft straight through the inferno of flak for the classic engagement which is set out in detail in the first chapter of this narrative. In addition to the Hunters claimed by Sqn Ldr Alam in this engagement, the sixth in the formation, flown by Sqn Ldr O. N. Kachar, was reported to have encountered engine trouble by its pilot. He ejected over Pakistani territory and became a prisoner-of-war. It was during this engagement that the Sakesar controller, Grp

Left: Flt Lt Amjad Hussain ejected from his F-104A Starfighter within seconds of hitting the ground after air combat with two IAF Mystère IVA fighters, one of which he shot down. For his combat missions in the 1965 war, he was awarded the Sitara-e-Jurat.

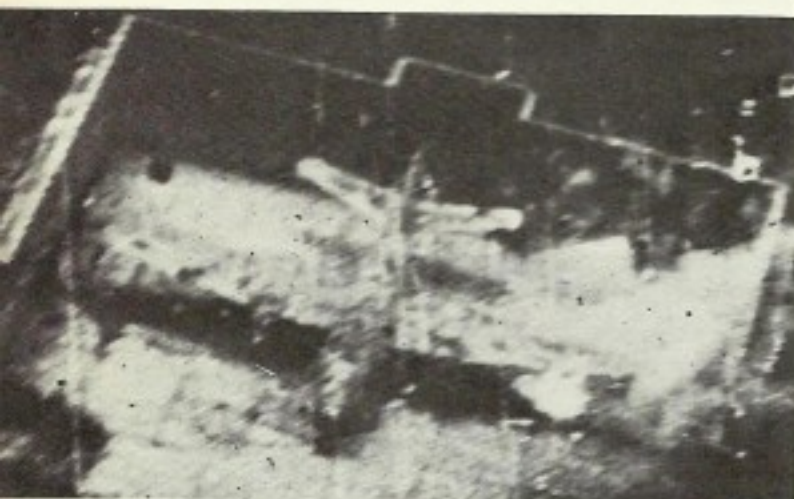
Below: Among the most creditable and least-publicised achievements by the IAF during the 1965 war was the shooting down in air combat of a Lockheed Starfighter of the PAF by an obsolescent Dassault Mystère IVA. About 80 Mystères were in IAF service at the start of hostilities in 1965.



Right: The successful initial strike in East Pakistan against the IAF air base at Kalaikunda was led by the CO of No 14 Squadron, Sqn Ldr Shabbir Hussain, seen here in the cockpit of his F-86F-40-NA Sabre at Tezgaon.

Below: In their initial strike against Kalaikunda, five Sabres of No 14 Squadron claimed the destruction on the ground of 10 Canberras, plus two Hunters damaged. By the time of the second strike, later in the morning of 7 September, some of the remaining Canberras had been moved into protected dispersals but, as shown here, this did not prevent them being attacked by the persistent PAF Sabres.

Bottom: Only one Sabre was lost, together with its pilot, Flt Lt Afzal Khan, by No 14 Squadron in its two major strikes against Kalaikunda. Flt Lt Khan was shot down over the target by IAF Hunters.



Capt Butt, called up Sqn Ldr Alam and asked him what he was counting. Almost stammering with excitement, the PAF fighter leader's voice came back, 'Don't you see, I've just shot down five Hunters.'

According to PAF estimates, the IAF therefore lost 100% of the second force to attack Sargodha on 7 September, and even the lower subsequently confirmed losses must have had a depressing effect on Indian morale. The loss was doubly grievous in involving senior and experienced IAF fighter leaders flying aircraft of superior performance to the F-86, and being inflicted without casualties to the PAF either on the ground or in the air.

There was then a brief lull at Sargodha while the IAF digested the unpalatable facts of its initial losses, but at 09.47hrs came the third raid of the morning. This proved to be the most purposeful yet, and was the only one of the four IAF daylight raids that day both to cause some damage and to avoid interception. Four Mystères flying at the usual tree-top height were reported by the outer and centre belts, but there was some confusion in the SOC over the inner plot. Four F-86s and one F-104 were scrambled and held about 10 miles to the east of Sargodha at 15,000ft, but the Mystères arrived over the airfield without being seen by the PAF fighters.

Despite the previous IAF attacks, several F-86s and F-104s were still parked on the ORP at the end of the runway where they presented the most obvious target. It was not until after this raid that the Sargodha station commander was able to persuade Air Cdre Masoor at Sakesar that, without indicating a complete lack of faith in the early warning systems, it was better to accept a couple of minutes' delay in scrambling aircraft from the protected dispersal pens than to leave them exposed on the end of the runway. As the Mystères flashed low over





Above: Following its successful strikes against Kalaikunda on 7 September, No 14 Squadron in East Pakistan (now Bangla Desh) became known as the 'tailchoppers'. In West Pakistan, the PAF claimed to have cut off the head of the IAF, and in the East, No 14 Squadron did an equally good job on the tail.

the trees, there were six fighters sitting parked on the ORP, but only one — an F-86 — was hit by cannon fire from the IAF aircraft, and destroyed. 'Sheer bad markmanship' was the professional comment from the Sargodha personnel, who considered that the Mystères ought easily to have been able to destroy all four F-86s and two F-104s on the ORP.

The sole Sabre to be hit was about to receive a pre-flight inspection from its pilot, Flt Lt Malik, accompanied by its crew chief, Senior Technician Rashid Ahmad, when the latter happened to look up and see two Mystères heading straight for them. Hurling his pilot away from the aircraft, Ahmad threw himself on top of Flt Lt Malik as cannon shells burst all around, but fortunately neither was hurt. Other airmen and officers left their trenches to help tow the two neighbouring F-86s clear of the burning Sabre. In their single hurried pass, the Mystères also launched a few rockets, one of which hit and damaged the old and abandoned Air Traffic Control building, but this strike nevertheless represented the biggest IAF success of the day.

All was then quiet at Sargodha for several hours until the fourth and final daylight raid at 15.41hrs in the afternoon. Three jet aircraft had been detected 15 minutes earlier by the outer belt of MOUs, heading west, north of Lahore. By the time two F-86s had been scrambled to intercept them, two Mystères had been reported by the inner belt heading for Sargodha, and the PAF fighters made contact as the IAF aircraft arrived over the airfield. One of the F-86s was flown by Flt Lt A. H. Malik, who had narrowly escaped the attentions of the previous Mystères on the ground, but who was now in a position to exact a suitable revenge. With Flg Off Khalid Iqbal as his wing man, he positioned himself behind one of the Mystères and blew it to pieces with a single Sidewinder

missile. Although he fired at a second Mystère, it managed to make its escape, but the ground defences at Sargodha claimed another of these IAF aircraft with a triple-mounted 20mm cannon during their low-level exit. No damage was caused by this attack on Sargodha.

With a claimed bag of six Hunters and three Mystères shot down in air combat around Sargodha, plus a further two Mystères destroyed by ground fire, for the loss of one F-86 on the ground and one F-104 in the air, the PAF had cause for reasonable satisfaction over the results of the first daylight raids against Sargodha by the IAF. In fact, these were also to prove the last day raids to be attempted against PAF airfields, which is hardly surprising since the Pakistani claims for 11 aircraft destroyed represented somewhere around 58% losses among the total of about 19 IAF aircraft involved in the day's attacks. And even if these claims proved optimistic, the margin between this degree of attrition and the 5% or so normally considered the maximum acceptable rate for daily losses was sufficiently vast to justify the tremendous surge in confidence throughout the PAF as dusk fell on 7 September — especially as no Pakistani aircraft had been shot down by the IAF in the air combats of the day.

On the other hand, the PAF might have had cause for concern over the fact that in four raids against a target over 110nm inside Pakistan territory, the IAF twice achieved almost complete surprise and on no occasion



were its aircraft intercepted before they had at least reached Sargodha. If the IAF had put into effect a coordinated strike plan against the three main PAF airfields, the results, with the Indian numerical superiority, and assuming more determination in the attacks than was in fact shown, could have been vastly different. If the IAF had bombed the runway at Sargodha, there was a good chance that the airfield's CAP aircraft would have run out of fuel before they could have been diverted. Prolonged strikes would also have restricted PAF activity to a minimum, although the other main operational bases at Peshawar and Mauripur, which were not attacked at all by the IAF during daylight hours, would of course still have remained fully active. But after the first engagements of 7 September, the PAF C-in-C could begin to relax a little with the near-certainty that Peshawar would not be attacked by day.

Not that 7 September was a one-sided affair so far as airfield strikes were concerned. And in continuing its air base offensive, the PAF met with substantially greater success than its adversaries. Few hostilities had hitherto taken place in East Pakistan, which the Indians assumed would automatically fall in succession to the Western Province. PakArmy units in East Pakistan were ill-equipped for an effective ground campaign, but there was reason to believe that India feared Chinese intervention in support of Pakistan in the event of war in the east. As largely agricultural country, with a maze of rivers presenting difficult communications problems, East Pakistan also offered little in the way of tempting targets, which was one of the main reasons why the PAF detached only one fighter squadron, based at Tezgaon, just outside the capital of Dacca, to guard its frontiers. In any case, No 14 Squadron, with its 12 F-86Fs, under the

command of Sqn Ldr Shabbir Hussain, was the only unit that could be spared by the PAF from its main commitments in West Pakistan.

When the PAF launched its airfield strike plan, No 14 was allocated the task of attacking the main IAF base threatening Dacca, at Kalaikunda, some 220 miles away and about 60nm to the west of Calcutta. Because of the one hour difference in local time, however, it was impossible to synchronise the strikes in East and West Pakistan at dusk, and the mission order to No 14 Squadron was therefore changed by the C-in-C to dawn on 7 September. There was always the chance, too, in the view of the Cabinet in Rawalpindi that if the situation remained quiet overnight in East Pakistan, it might prove possible to avoid an escalation of hostilities. This hope did not materialise, however, since IAF Canberras from Kalaikunda penetrated into East Pakistan air space as far as Dacca during the night of 6/7 September, and dropped bombs at random without much effect in the way of damage or casualties.

Since this then allowed the PAF C-in-C to retaliate, it resulted in the first prospect of action for No 14 Squadron, which had been placed on full alert status during the Rann of Kutch crisis, but had been flying only dawn and dusk patrols during the past few days. One F-86 had been lost on 4 September through a bird strike — not an uncommon hazard to low-flying jets — but on the first day of the full-scale war, most of No 14 Squadron pilots were required to do little more than sit in their cockpits at readiness. At first light (about 05.30hrs) on 7 September, however, two F-86s flown by Flt Lt (now Sqn Ldr) Farooq F. Khan and Flt Lt Aziz, were scrambled following a report that a Canberra and two Hunters were attacking Chittagong airfield.



Above left: One of the few remaining daylight strikes undertaken from West Pakistan by the PAF against Indian air bases was achieved on 7 September by No 19 Squadron against Srinagar, in Kashmir, under the redoubtable 'Nosey' Haider, seen here with some of his pilots.

Above: One of the IAF aircraft shot up on the ground by No 19 Squadron at Srinagar was a Douglas C-47.

Further reports of the IAF aircraft diverting to attack the new international airport being built at Kurmitola, about 14 miles north of Dacca, and then the capital itself, resulted in the two Sabres milling around over the city area beneath the very low clouds prevailing that morning. Contact was then lost with the F-86 flown by Flt Lt Aziz, which apparently flew into the ground while its pilot was distracted by an IFF frequency change. It is presumed that while reaching down into the cockpit, he inadvertently pushed the stick forward when he was only a couple of hundred feet above the ground. No contact had been made with any enemy aircraft, although from their airfield at Dacca, the pilots of No 14 Squadron had seen one Canberra and two Hunters making two attacks each on Kurmitola. Except for a small radar unit on one end of the runway, this was not used by the PAF, and the IAF aircraft caused only two fatalities, one of whom was a 12-year old boy.

The PAF strike against Kalaikunda was rather a different story. After the mission order had been received at about 06.00hrs on 7 September, five pilots (Flt Lts Haleem, Baseer, Tariq Habeeb and Flg Off Afzal Khan, led by Sqn Ldr Shabbir Hussain) were briefed for a low-level sortie involving a distance of nearly 200nm from

Dacca. Because of the necessity to fly low all the way, the Sabres were required to carry their full load of external fuel in two 120- and two 200-gallon drop tanks per aircraft, leaving only their 0.5in machine-guns available for the attack.

This was a text-book mission in every respect. The Sabre formation arrived at Kalaikunda without being intercepted and when the PAF pilots pulled up to about 2,000ft to begin their attacks, it was obvious that complete surprise had been achieved. There was no anti-aircraft fire, and no fewer than 14 Canberras were lined up wing-tip to wing-tip on the tarmac as though for peacetime review. While three of the Sabres were detailed to attack the Canberras, the two other F-86s concentrated on three Hunters parked on the ORP. Each Sabre made two passes over the airfield, and it was not until about half-way through their attacks that the first anti-aircraft fire was encountered. This remained moderate, and three Hunters which appeared overhead discreetly decided not to interfere with the systematic ground-strafting operation being conducted by the PAF.

All the Sabres emerged unscathed from the strike, which left the entire IAF airfield covered in smoke and flames, and landed back safely at Dacca despite bad weather and poor visibility at 07.44hrs, one hour and 13 minutes after take-off. Their initial claim for the attack comprised 10 Canberras destroyed and five damaged, plus two Hunters damaged, which represented a major achievement by only five aircraft. While the strike had been airborne, large numbers of IAF aircraft had been plotted over Jessore, heading towards Dacca, but several of the six remaining Sabres on the airfield were scrambled for an interception. No contact, however, was made with the IAF aircraft, which headed back across the Indian border. The degree of the air defence effort at Dacca is illustrated by the fact that one pilot alone — Flt Lt Farooq Khan — was scrambled five times in his Sabre in the first two hours after daybreak on 7 September. At no time, however, did he see an enemy aircraft.

At about 10.00hrs, No 14 Squadron was ordered to follow up its strike against Kalaikunda, to complete the destruction of this major IAF base, with four aircraft made available for the task. Except for Sqn Ldr Shabbir, who stayed behind, the same pilots who had been on the first strike were detailed for the second attack, this time led by Flt Lt Haleem.

Take-off was at about 10.30hrs and the approach was made at low level as before, although in fairly poor visibility; but this time the Indians were ready for trouble. As the F-86s pulled up for their attack, No 4 called on the RT 'Nine Hunters, 12 o'clock high,' and heavy ack-ack fire was also encountered from the airfield. From their battle formation, the F-86s split into two pairs as the leader ordered his No 3 and 4 not to follow him into the attack, but during their single pass, the first two Sabres each strafed a Canberra. By this time, the remaining Indian bombers had been moved from the tarmac into protected dispersals, presumably on the principle of better late than never.

All four F-86s then turned to engage the Indian aircraft, and Flt Lt Tariq Habeeb, who was leading the second pair of Sabres, called, 'Lead, I have four Hunters behind me.' He also told his No 2 Flg Off Afzal Khan to

jettison his long-range tanks and break. With four drop tanks beneath the wings, the Sabre becomes very sluggish, and before Flg Off Khan could release them a Hunter had closed in to about 600ft and opened fire. The F-86 burst into flames, and rolled straight into the ground. This was the second and last casualty suffered by No 14 Squadron during the campaign in East Pakistan.

Flt Lt Tariq Habeeb in the meantime had jettisoned three of his tanks, but the fourth hung up and with this handicap he was cornered by three Hunters for a good 10 minutes. With remarkable coolness and presence of mind, he twisted and turned at low altitude to evade his pursuers, popping out his speed brakes and lowering flap to improve his low-speed manoeuvrability. Even after his flaps stuck down at 20 degrees he managed to continue breaking into the Hunters, as well as firing at a couple of them, before he succeeded in shaking them off and returning to safety to Dacca, shortly after the other two Sabres had landed. For his courage and skill in fighting his way clear of the larger and better equipped enemy force, Flt Lt Habeeb was awarded a well-deserved Sitara-e-Jurat (DFC), and No 14 Squadron earned the nickname of the 'Tailchoppers'. In West Pakistan, the PAF had cut off the head of the Indian air force, and in their two sorties on 7 September, the pilots of No 14 Squadron did an equally good job with the tail, although further operations in the Eastern wing were curtailed after 10 September by political restrictions to avoid escalation.

But the PAF had still not finished with the Indian airfields during the remaining daylight of 7 September. Peshawar, which the IAF made no attempt to strike by day, had a full programme of air defence, close support and airfield attack sorties, beginning at 05.45hrs in the morning with an armed recce flight by two F-86s led by Wg Cdr Tawab in the Samba sector. Four Sabres were also called in from Sargodha for close support around Charwa in the Sialkot area, shooting up a number of tanks and vehicles of the 14th Indian Infantry Division in the process.

In the afternoon, No 19 Squadron was issued with a mission order to attack Srinagar air base in Kashmir, and to reconnoitre the adjacent airfield of Avantipura with the object of strafing anything worthwhile that was visible. Sqn Ldr Haider was already familiar with Srinagar airfield, having flown over it on a reconnaissance mission on 3 September, when only one Canberra and one transport aircraft were in evidence. On 7 September, he led three other pilots of No 19 Squadron to Srinagar on a 'hi-lo' mission profile, using the 26,000ft peak of Naga Parbat for radar cover, and then descending low-level into the Vale of Kashmir and over the beautiful city of Srinagar.

On the way into the targets, 'Nosey's' No 4 spotted a helicopter in the air and suggested shooting it down, but the squadron commander couldn't bring himself to agree to attack such a sitting duck. Avantipura airfield was discovered to be disused and deserted, but a little further on, the air base at Srinagar showed decided signs of life. This was apparent mainly in the form of the most intensive anti-aircraft fire yet encountered by No 19 Squadron's pilots in their adventurous first two days of war, but the airfield also yielded a meagre three transport aircraft. Two of these were veteran Douglas C-47

Dakotas, which were strafed and set on fire by the squadron commander and his No 2, while the third, near the control tower, was a DHC Caribou. This type was also known to be in IAF service, and was duly shot up, together with the ATC building, by the No 3 Sabre, although it was later discovered to have been a United Nations aircraft. Further attacks on Srinagar were restricted by the lack of targets and a fuel leak reported by the No 4 Sabre, but all the F-86s returned safely to Peshawar. Their pilots were later amused to hear claims by Radio Srinagar that two PAF Sabres had been shot down during the airfield strike, and that Sqn Ldr Haider was specifically mentioned as having been captured.

Despite having gone without sleep since dawn on 6 September, the indefatigable 'Nosey' completed his second day of intensive operations by taking part in another dusk strike with four other F-86 pilots against the IAF fighter hornet's nest at Pathankot. This mission was somewhat of a forlorn hope, in view of the preceding operations, and a wall of flak arose from the Indian air base before the Sabres were even within range. Although the PAF aircraft braved the ground defences and pulled up to attack, no targets were visible on the ground. One unidentified aircraft was seen flying around with its navigation lights on, but the five F-86s made their exit after only a nominal attack in the general area of the airfield.

But as the night shift took over the offensive, the PAF had every reason to be satisfied with the most testing period of its existence, having destroyed during the first two days of war something like 19 aircraft in the air, including those shot down by ground fire, and 35 on the ground. Of its own losses of six F-86s, one F-104 and one B-57, only three were known to have been shot down by the enemy, which left the PAF at the end of 7 September in no doubt whatsoever of its superiority over the Indian Air Force. The significance of this date to Pakistan is acknowledged by the fact that from 1965 onwards, 7 September has been celebrated as Air Force Day.

At the conclusion of the first two days of operations, the following message was received from President Ayub Khan by the C-in-C PAF, Air Vice Marshal Nur Khan:

'I am writing to congratulate you and all ranks of the air force on the magnificent job that they have done in destroying so many enemy aircraft on the ground and in the air despite being heavily outnumbered. Their deeds of valour have heartened the nation and justified the confidence in their ability to defend the country. We are all proud of you. Please convey my congratulations to all your officers and men on this brilliant performance.'

In seeking to cripple the IAF on the ground, AVM Nur Khan, as often happens in war, did not achieve full success in both his attempts. His plan of inducing the IAF to attack his main base, however, and his use of the combination of Starfighter, Sabre and the Sidewinder AAM in the air defence role did result in the attainment of air superiority in four major engagements, leaving the PAF free to lend a hand to PakArmy. The C-in-C's confidence in his plans and his unwavering adherence to them, despite some failures, won the air superiority battle as much as the courage and skill of the pilots who fought the IAF on their own terms.

14. Conservation and Close Support

September 7 marked the climax of air combat and airfield strikes during daylight by both sides. Neither India nor Pakistan could continue operating for very long at this sort of intensity, or accept the attrition rates of the first two days of full-scale war. India, of course, was particularly badly placed in the latter respect, having lost a large number of experienced pilots as well as more than 50 aircraft, according to Pakistani calculations. But even the eight aircraft written off from the PAF inventory after the first 48 hours of war operations represented a higher attrition rate than had been calculated in the Pakistani war plans. These, however, were regarded as unrealistically low by the Director of Operations at that time, Air Cdre Saeedullah Khan. Nevertheless, he regards the initial PAF attrition rate as the single most influential factor in determining the course of the remaining air operations.

The C-in-C, on the other hand, was delighted with the low loss rate experienced by the PAF in the first couple of days, which was well below his personal expectations. But he was only too aware of the demands still likely to be made on his small force in the days to come, especially from Pak Army, and one of his biggest problems was the unknown length of his operational commitments. With Army C-in-C Gen Musa, the newly promoted Air Marshal Nur Khan went to see President Ayub Khan to seek guidance in this respect after the first two or three days of operations, but received no political direction at this or any other time during the hostilities. There were, of course, no reserves. When the F-86 had been destroyed on the ORP at Sargodha by marauding Mystères, No 102 Maintenance Unit was contacted for a replacement, but the CO of the MU, Wg Cdr Rana, had to report that the last Sabre from reserve stocks had been sent out to Mauripur that morning.

To a lesser extent, there was also a spares limitation. In supplying the PAF with its equipment under the Mutual Aid Program, the United States did not permit the large-

scale stockpiling of spares which were normally supplied on demand within about 15 days. All American supplies, of course, were immediately stopped to both India and Pakistan after the Rann of Kutch incident, and the PAF was uncertain as to how long its available stocks of spares would last. Maintenance support planning was achieved on the basis of about 4,000 flying hours, for the F-86 force, after which its serviceability could not be guaranteed without additional spares. In practice, however, these estimates proved extremely pessimistic and the PAF support capability for the F-86 was estimated to have been good for anything up to 20,000 hours of Sabre flying, without replenishment. This was just as well, since the PAF Sabre force was accumulating about 150 hours of flying per day, but on 23 September, when the cease-fire became effective, enough spares remained available at least for another 4-5 weeks of operations. The limiting factor for the PAF at that time was, in fact, only the supply of 2.75in rockets.

Other major factors, of course, in simplifying the spares and maintenance problems, were the ingenuity and untiring efforts of the ground crews at the operational bases. These dedicated personnel succeeded in maintaining peacetime standards of serviceability under not only wartime but front-line conditions, with much of their work having to be done at night by the light of hand-held torches during constant enemy air raids. At Sargodha, for example, where the maintenance crews did not have time to sleep for the first 72 hours of the war until organised into shifts, and were under almost constant day and night attack for about 36 hours, no fewer than 25,000 or so torch batteries were used throughout the period of hostilities on servicing and recovery during the hours of darkness.

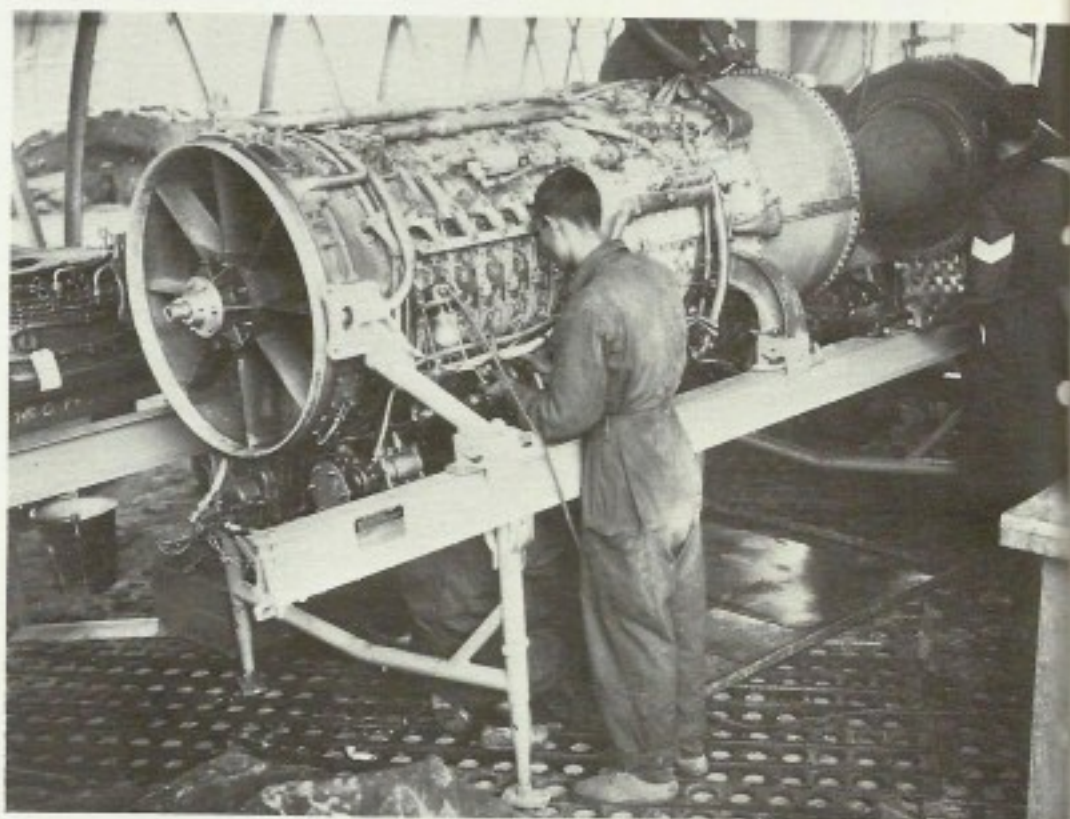
Fortunately, the ground crews were so familiar with their F-86s that they could almost perform most of their tasks with their eyes shut. While the American system of changing components rather than repairing them on the



Above: PAF ground crews played a major part in the successful 1965 air operations by maintaining remarkable standards of serviceability despite greatly increased flying tasks and having to undertake much of their work at night by the light of torches during constant enemy air raids.

Right: In the 1965 operations, trenches replaced work benches for the dedicated PAF ground crews, seen working here on a Starfighter's General Electric J79 supersonic turbojet during the war. Despite all difficulties, the ground crews succeeded in maintaining about 80% serviceability, and never dropped below 72% throughout the 22-day war.

Below right: PAF ground crews swarm over a Sabre between operational sorties, to achieve the quickest possible turn-around times. Refuelling and rearming was frequently achieved within minutes, despite operational problems and conditions.



spot was continued, the unserviceable parts were then brought back into commission by the PAF ground crews instead of being returned to rear echelon maintenance or the manufacturers, or being scrapped. Trenches replaced work benches, but somehow the maintenance personnel always managed to achieve about 80% serviceability, despite their many difficulties. The rate for all PAF F-86s never dropped below 72% throughout the war. Ground crews were very conscious of their responsibilities, proud to be under fire alongside their pilots, and vitally interested in comparing the extravagant claims by All-India Radio with the numbers of aircraft they could see coming back from each mission.

For the C-in-C, therefore, the main object was to balance the desirability of maintaining hard-won air superiority against keeping his small but efficient force in being. Conservation thus inevitably became the overriding consideration governing PAF tactics. And having established air superiority, the major decision towards this end was that of abandoning any further

daylight fighter strikes against enemy airfields. Since most of these were at the extreme limit of the F-86's radius of action, the PAF was left with perilously small fuel margins for combat. Any aircraft losses also inevitably meant losing the pilot over Indian territory. The air staff view was that engagements resulting from close support missions or fighter sweeps would be more advantageous for the PAF — in other words, it was safer and easier to destroy IAF aircraft in the air than on the ground. But it was also recognised that air combat alone could not win the war.

After 7 September, therefore, the main PAF counter-air effort against enemy airfields was taken over by the B-57 force, with undertook a non-stop night offensive. This left most of the Sabres free for air defence and close support roles, plus fighter sweeps to try and entice the enemy into action, at the cost of a higher attrition rate than forecast within the B-57 force.

In keeping with the conservation policy, all three tasks were initially reduced to a minimum. CAPs were cut back, and only essential support missions were undertaken on behalf of PakArmy. By then, Indian troops in Kashmir were making strong counter-attacks, with air support from the IAF, which resulted in Maj-Gen Yahya Khan dropping the idea of advancing as far as Akhnoor, although both the town and its bridge were shelled by Pakistan artillery.

On the Lahore front enemy troops were reinforced by the 50 Indian Para Brigade, which arrived on the evening of 7 September, but their attempted overnight advance was beaten back. On the following day, PakArmy's 22 Infantry Brigade advanced across the BRB canal, close to the international border, despite IAF counter-strikes, and began pushing the Indian Army out of Pakistan. In the first nine hours of their offensive, PakArmy troops advanced eastwards a distance of 12 miles, but they were not sufficiently strong at this stage to occupy Wagah, virtually on the Indian frontier.

As part of its drive towards Lahore on 6 September, the Indian Army had launched simultaneous flank attacks to the north and to the south, towards Sialkot and Kasur, respectively. Sialkot, of course, was the back door to Jammu and Kashmir, although the Indian invasion by one armoured and three infantry divisions from Samba through Jassar and Suchetgarh was also interpreted as being designed to roll down to the plains as far as the Grand Trunk Road and envelop Lahore from the north. At Jassar, Indian troops were contained at the far end of the bridge, which was blown up on 7 September, while 26 Indian Division failed to make any headway along the main Sialkot-Jammu road. Only between Charwah and Bajra Garhi did the Indian offensive meet with much success, PakArmy troops being forced back a few miles to Chawinda by dawn on 8 September.

South of Lahore, in the Kasur sector, the Indian offensives towards Bedian and Kasur itself at dawn on 6 September — both of battalion strength, supported by armour — were resisted to such good effect by PakArmy units under Maj-Gen Abdul Hamid that by the following day, the enemy had been driven back across the border. According to the preconceived plan, the Indian Army was to be pursued into its own territory as far as Khem Karan, for which task 11 PakArmy Division had been

allocated 5 Armoured Brigade. The necessary bridgehead across the Rohi Nala for this limited offensive was completed by Pakistan engineers on the evening of 7 September, in the face of constant, although ineffective, enemy air attacks. By the next morning, despite strong enemy counter-attacks, PakArmy forces had captured Khem Karan and were pressing on still further into India. With a population of some 20,000, the historic trading centre of Khem Karan was the only town of any magnitude to change hands throughout the Indo-Pakistan war, and was held by PakArmy forces despite desperate enemy counter-attacks.

One other front was opened up by India on 8 September, when Gadro village in the Sind, way down in the south of West Pakistan, almost due east of Karachi, was assaulted by an enemy battalion and two squadrons of armour. Gadro fell almost immediately, and Indian troops pressed on towards the town of Khokhrapar, 15 miles further along the railway line through the Rajputana desert to Hyderabad and Karachi, some 200 miles away. Within a couple of days, however, PakArmy counter-attacks, with the assistance of nine close support sorties by F-86s from Mauripur against enemy supply lines and troop concentrations on 9 September, had pushed the Indian forces back across the border. At least 10 wagons and 26 vehicles were destroyed by the F-86s.

On 10 September, after further F-86 strikes against enemy positions at Gadro and around Munabao, the latter town and railway station — six miles inside Indian territory — were captured by PakArmy forces. These continued to occupy further enemy outposts until the 51st Brigade had succeeded in taking over some 1,200 square miles of Indian territory, but further air action was limited. A curious feature of this front, which included a major struggle around Sadhewala, was that some of the heaviest fighting took place after the cease-fire on 23 September, when the Indians launched a major but unsuccessful offensive in the Sind area in an evident attempt to avenge their past defeats.

Close support operations in the Gadro area were flown almost daily by single Lockheed T-33 armed jet trainers from Mauripur, and these completed 20 sorties between 8-17 September. This was by far the largest commitment, in fact, of the small T-33 contingent, which flew a total of 27 missions throughout the war. Because of their restricted armament and performance, the T-33s could not survive against first-line IAF fighters, and were therefore used mainly in the more remote Rajasthan sector. After 17 September, most missions were flown from Sargodha, but only on a few occasions was more than one T-33 sent into operations at a time. The peak number employed on a single mission was three T-33s, and then only once.

After 7 September, and the attainment of air superiority by the PAF, its increasing freedom to undertake close support operations had a considerable impact on the land battle. As the C-in-C commented after the war:

'PakArmy was under considerable pressure from the Indian troops, but the close understanding with ourselves at that stage, and our air superiority, meant that the PAF could take its time in locating, identifying and attacking



targets. This helped to make up for the lack of direction of the attacking aircraft from the ground.'

Above: PAF ground personnel at Sargodha were inspected by President Ayub Khan during the 1965 war, and congratulated on their steadfast performance. With the President is the base commander at Sargodha, Grp Capt (later Air Cdre) M. Zafar Masud.

Above right: Lockheed T-33 jet trainers of the PAF were pressed into service at Mauripur for ground support operations in the Rajasthan sector, where they were unlikely to be challenged by Indian fighters. After 17 September, additional T-33 missions were flown from Sargodha. The small T-33 force was credited with the destruction of 62 Indian guns and 16 railway wagons between 7-22 September.

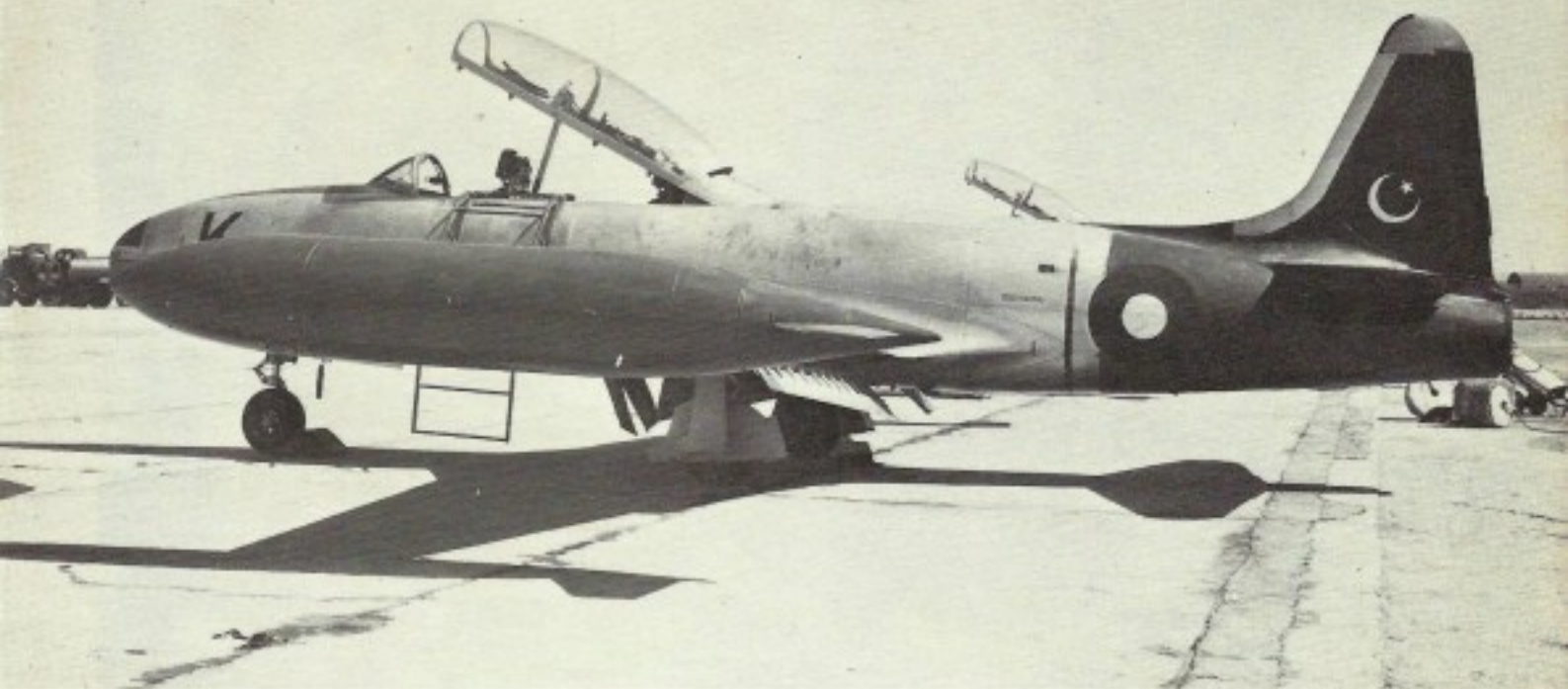
While the PAF now had capacity to spare for close support missions — the ACAS (Ops) often used to go to GHQ and ask the Army for strafing jobs — the F-86s found problems in picking out their targets. In the words of the PAF Director of Operations during the war, Air Cdre Zafar Chaudry: 'Army liaison was a fiasco. If our troops could see a target suitable for an air strike, they would engage it themselves. If they couldn't see it, they had no way of directing PAF aircraft on to it.' Army Air Contact Team control of close support missions was undoubtedly bad, despite the establishment of an ad hoc liaison organisation before the start of hostilities, but it must be remembered that until then, the Army had been told quite firmly by the PAF that no air effort could be spared for ground support roles. Requests for pre-planned support missions were filtered through the Combat Operations Centre of the JOC (Joint Operation Centre) to Air HQ, Rawalpindi, which issued the appropriate combat orders to the PAF units, but there were also direct links between Pak Army units in the battle area with the fighter wings, through their Army liaison officers. Another weakness was the poor serviceability and limited range (only 2-3 miles) of the UHF radio equipment belonging to the Army Contact Teams. The ACAS (Ops) had drawn the attention of Chief of the Army General Staff to these deficiencies in July 1965, and had overhauled 13 of the sets at Sargodha, but found that most had been neglected and mishandled in Army use.

Total reaction time for 'on request' sorties varied between 50 and 90 minutes before the ordnance was actually delivered. This system appeared to work well enough, but the major weaknesses were in the absence of experienced PAF liaison officers with the Pak Army units and the air control link in the front line to indicate and

mark the specific targets. PAF fighter-bombers were usually dependent on indications only of a general area, with the result that they had to spend excessively long cruising around below 1,000ft looking for their targets.

This meant unnecessary exposure to Indian light flak, although it is a remarkable fact that in the course of nearly 500 close support missions by its Sabres during the 1965 war, the PAF did not lose a single F-86 to enemy ground fire. A few PAF aircraft were shot down by Indian anti-aircraft guns on counter-air missions, and one F-86 blew itself up when attacking a train. But the fact that none fell to Indian Army flak, indicates its wild inaccuracy although its intensity is reflected by the total of no fewer than 58 PAF Sabres — over 50% of its F-86 force — which were hit and damaged by enemy ground fire while attacking tanks, troops and vehicles. In contrast, Pak Army AA gunners claimed 27 IAF aircraft during the same period, and the Navy three more. These were almost certainly optimistic figures, but still vastly exceeded the enemy equivalents.

Despite the shortcomings of its forward air control organisation, the PAF had the advantage that, once its F-86s had found their target, they were sufficiently contemptuous of enemy air interference to set up a text-



book attack pattern to normal training procedures. If necessary, a couple of Sabres acted as top cover while waiting their turn to strafe, and the remainder flew systematic circuits, each covering the other's tail and ensuring its predecessor was clear before beginning its firing pass. It was not uncommon for the PAF Sabres to spend as long as 30 minutes working over a target, whereas the Indian strike fighters seldom made more than a single hurried pass against PakArmy targets, and sometimes simply jettisoned their external ordnance rather than attempting to deliver it.

From 8 September onwards, the IAF seemed hesitant to appear over the battle area, and enemy fighter-bombers would approach PakArmy units only after PAF CAPs or strike aircraft had withdrawn. The difference in close support techniques is indicated by the PAF claims for its tactical strike element compared with PakArmy losses to the IAF. From 1-22 September the F-86s alone were credited with the destruction of 149 Indian tanks and 666 assorted vehicles, plus one goods train blown up, with a further 56 tanks and 69 vehicles damaged. In a further 24 sorties, from 7-22 September, the small T-33 force was credited with 62 guns destroyed, seven damaged and 16 railway wagons destroyed. It is difficult to believe, but comparable PakArmy losses as a result of IAF strikes comprised only a single tank destroyed, plus another damaged by having one of its tracks blown off, although the official Indian account claimed no fewer than 120 Pakistan tanks knocked out by air action.

One of the reasons put forward for this extraordinary disproportion in relative losses was that the Indian habit of confining most of their strafing missions to the late dusk period, to minimise the chances of interception, meant that they had even more difficulty than did the PAF in picking out their targets in the gloom. At the same time, being silhouetted against the evening sky, the IAF aircraft made good targets for the intensive and well-

aimed PakArmy 40mm Bofors and other light anti-aircraft guns. The general PakArmy attitude towards IAF attacks was summarised by Lt-Col Tariq Mahmood, who took part in the capture of Khem Karan:

'Normally our troops did not show much concern when aircraft flew overhead as they took it for granted that they were our own. On some occasions one would be seen diving towards them and only when the bullets kicked up dust would they take cover — just to let it pass ... But by and large, we had stopped bothering about Indian aircraft. I think the main reason for our indifference was that the Indians never stayed long enough to cause any damage ...'

While the PAF close support effort was also notable for avoiding accidental attacks on PakArmy units, the latter were slightly less discriminating in their aircraft recognition. Returning from a strike made on 8 September in company with three B-57s against the enemy stronghold of Chima on the Kasur sector (the bombers were now occasionally used in daylight, for close support following the attainment of air superiority by the PAF) four F-86s were engaged by PakArmy AA gunners under the impression that they were IAF Hunters. The Pakistani troops were particularly touchy having been strafed only an hour or two earlier by Hunters in the Kasur area, managing to shoot one down in the process. Its pilot, Flt Lt Mohinder Vir Singh, ejected and was taken prisoner.

Under combat conditions, there is a natural tendency to shoot first and ask questions afterwards, and curiously enough on its way out the Sabre formation, led by Sqn Ldr Ashad, had nearly opened fire on PakArmy tanks beyond Kasur. Fortunately, the tanks were recognised as friendly by Flt Lt Mukhtur, but the apparently hostile intentions of the Sabres may have accounted for their later engagement by PakArmy flak.



Once again, the aim of the Army gunners was good, and the No 4 Sabre, flown by Flt Lt Sadruddin, was hit and caught fire. Prompted by Flt Lt Mukhtar on the RT, Flt Lt Sadruddin ejected successfully from the stricken Sabre, but after landing safely by parachute about four miles south-east of Kasur, was beaten up by villagers under the impression that he was an Indian pilot. This confusion probably arose from the fact that, as an East Pakistani, Flt Lt Sadruddin had an unfamiliar accent and cast of features. Having lost his papers during the struggle, he had difficulty in establishing his identity even after being handed over to PakArmy troops. Eventually, Flt Lt Sadruddin was recognised by a former classmate, and his troubles were over.

Mistakes such as these are inevitable in times of war, but are always particularly tragic. Three days later, the PAF was to lose one of its specially equipped RB-57B ELINT aircraft, together with a highly trained pilot from a similar cause but these were fortunately the only casualties of this kind on the Pakistani side throughout the war. It became apparent that India experienced similar problems, although evidence to this effect became available in a rather curious way. Following the abortive SSG assaults attempted by PakArmy commandos, All-India Radio announced that a PAF C-130 had been shot down near Delhi, with the inference that it had been engaged in similar operations. In support of the Indian claim, photographs of aircraft wreckage bearing inscriptions in English were published in national newspapers and newsreels. In their enthusiasm, however, the Indians neglected to notice that the English inscriptions were accompanied by translations in Russian, and only the IAF had aircraft of Soviet origin at that time. It transpired that the wreckage shown was of an Antonov An-12 transport, which is the Russian equivalent of the C-130, operated by the IAF in some

numbers. The wreckage illustrated was apparently of an IAF An-12 which had been mistakenly shot down by Indian 'Guideline' surface-to-air missiles, also Soviet supplied.

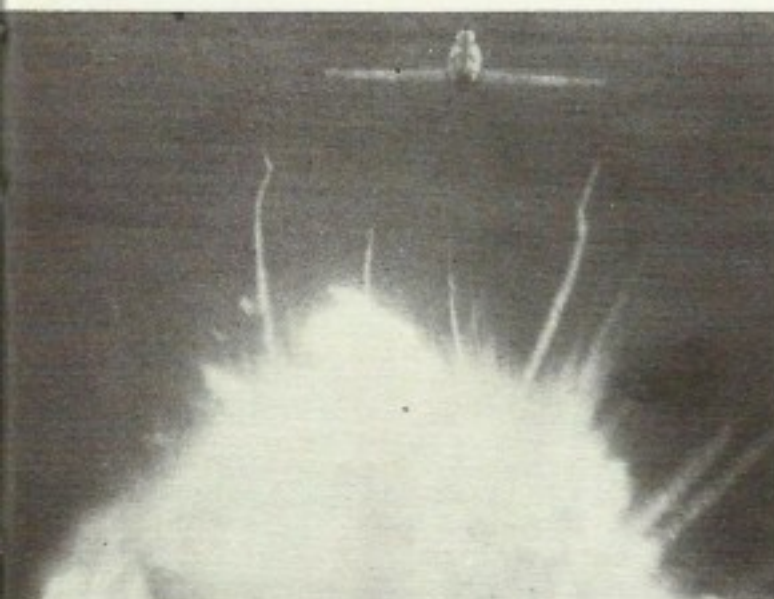
While all the PAF's squadrons shared PakArmy's close support tasks throughout the war, only at Sargodha was there an attempt to build up a specialised strike wing for the most active battle areas along a 150-mile arc between Jammu and Fazilka facing Sialkot, Lahore and Kasur. Between them, these three sectors accounted for the major proportion of the PAF close support effort, which from 10 September onwards was undertaken as a primary role by No 32 Wing, under the command of Wg Cdr Masood A. Sikander. Two Sabre squadrons, each with 12 F-86Fs, comprised the combat strength of 32 Wing, having moved up from Mauripur to Sargodha between 4-6 September, leaving a third Sabre squadron behind for the air defence of the Karachi area and other operations in the extreme south of West Pakistan.

At Sargodha there was keen rivalry between the detached element of No 17 Squadron, commanded by Sqn Ldr Azim Daudpota, and its sister unit, No 18 Squadron, led by Sqn Ldr Alauddin ('Butch') Ahmed, to get in the first crack at the IAF. Thirty-four year old Sqn Ldr Ahmed was one of the most dynamic characters in the PAF. The son of a well-known eye specialist in East Pakistan, he was very short in stature but had the heart of a lion. He also suffered from the physical disability of having one leg slightly shorter than the other, but a measure of his forceful personality was the fact that he nevertheless managed to storm his way past the PAF medical board for pilot training despite their stringent standards.

Operations by the two squadrons between 1-10 September were confined mainly to CAPs and armed reconnaissance flights with the other Sargodha Sabres

Left and right: A PAF F-86F Sabre is bombed-up by ground personnel at Sargodha in preparation for a ground attack sortie. On rare occasions, all three pylons beneath each wing were utilised for bombs and rockets, as well as the normal drop-tanks, but for maximum-range sorties, armament was usually confined to the Sabre's six 0.5in Browning machine-guns, with 300 rounds per gun.

Below: Air and ground views of Napalm delivery by F-86F Sabres of the PAF during training sorties. Napalm was regarded as a useful alternative to the pod-launched 2.75in FFAR (folding-fin aircraft rockets) widely employed by the PAF against Indian armour.



along the Lahore-Amritsar road and over Kashmir, with little or no sign of enemy aircraft. After 10 September, when the wing was given its close support role, its 18 or so aircraft were assembled together in a separate area at Sargodha for a rapid turn-round between sorties, and particular attention paid to the establishment of an army liaison organisation and communication system.

One of the main tasks of the strike wing, under the continued control of the Sargodha station commander, was, of course, tank-busting, for which its Sabres were armed with four underwing jettisonable pods, each containing seven 2.75in FFAR (folding-fin aircraft rockets) with HE/AT (high-explosive anti-tank) warheads, or with eight 5in rockets per aircraft. Napalm was also used against special targets, and the standard armament of six 0.5in Browning machine-guns with 300 rounds per gun was effective against hard- and soft-skinned targets. This was just as well since there was often insufficient time to load the appropriate weapons for specific targets between sorties. The deadly little 2.75in rockets were good general purpose weapons, and although lacking the accuracy of gun armament, their spread when fired in salvos of seven resulted in a 75-80% certainty of knocking out a tank.

Their effectiveness was proved by the wing on a number of occasions, beginning on 10 and 11 September with strikes on Indian Army targets in the Samba area just inside the Kashmir border. This was a large assembly area for Indian armoured fighting vehicles, which were preparing for an assault against Sialkot and Jassar. After the attentions of No 32 Wing, however, which claimed a total of some 19 tanks and more than 100 vehicles destroyed in the first two days of their specialised operations, the enemy was never able to assemble his forces together in this area for an effective attack.

Nevertheless, units of the 1st Indian Armoured Division attempted a drive through Chawinda over the next five or six days, and once again, the PAF tactical strike element played a prominent part in the ensuing major tank battle. This engagement around Chawinda, in fact, has become something of a classic in the annals of tank warfare, but the joint success of the PAF and PakArmy in knocking out large numbers of the Indian armoured fighting vehicles in a week or so, was made possible in the first place by the attainment of Pakistani air superiority. To meet the Indian armoured threat, PakArmy had a requirement on 9-10 September to move a large number of tanks and equipment by train from around Kasur to the north. It was not possible to wait for the cover of darkness for this operation, which presented a magnificent target to the IAF, but because of its superiority, the PAF was able to promise the Army that there would be no air interference. Air cover was provided by F-86s and F-104s from Sargodha, and although Indian reconnaissance aircraft were observed in the area, there was no attempt to follow up with attacks.

Trains presented tempting targets for the ground attack aircraft of both combatant countries, and the PAF had a notable encounter of this type on 13 September. Four 32 Wing Sabres led by Sqn Ldr 'Butch' Ahmed, accompanied by Flt Lts Saleem, Amanullah and Manzoor, were making their second offensive patrol of the morning, having blasted a number of enemy tanks and guns in the Chawinda-Narowal sector soon after first light. Flying low along the Batala-Gurdaspur railway at about 10.30hrs, the four Sabres came across a train on which they dived, only to pull away without attacking when it was identified by Sqn Ldr Ahmed as carrying civilian passengers.

Reaching the end of their patrol line within distant sight, in the early morning haze, of the runways at Pathankot, the Sabres set course towards the town of Gurdaspur, still searching for signs of Indian Army activity. In the goods yard of Gurdaspur station the PAF section had better luck, and a long line of freight wagons soon yielded some spectacular explosions as the probing fire from the F-86s set ammunition and military stores ablaze. Pressing home his attacks to point-blank range, Sqn Ldr Ahmed flew so low that his aircraft was struck by fragments from the exploding trucks, but with no apparent damage he continued diving into the thick pall of smoke which quickly shrouded the scene.

Because of the restricted visibility, his last attack was lower than ever, and his salvo of rockets found a store of high explosive which engulfed his Sabre in a massive blast of pressure waves and debris. So violent was the explosion that the other Sabres were buffeted almost out of control, and 'Butch' Ahmed had no hope of avoiding action. With Pakistani territory barely 12 miles away — just about one of a half minutes' flying time — he called, 'My cockpit is full of smoke,' and tried to head his crippled aircraft towards the west. A moment later he added, 'It seems to be all right now,' but those were the last words ever heard from him.

It is known that 'Butch' Ahmed ejected from his burning Sabre, and two other F-86s flying in the vicinity from Peshawar were diverted by Sqn Ldr 'Nosey' Haider to cover him on his way down. PAF aircraft, assisted by



Above: Although he ejected safely from his burning Sabre after it had been blown up following his attack on an Indian ammunition train, Sqn Ldr Alauddin 'Butch' Ahmed was believed to have been shot while descending by parachute in the battle area.

PakArmy Cessna L-19s, spent five hours searching the area in an attempt to rescue him. But Sqn Ldr Ahmed was dead by the time he reached the ground, and is generally thought to have been shot while hanging helplessly from his parachute. 'If he'd reached the ground alive, nothing on earth could have stopped him from escaping', was Sqn Ldr Haider's comment. A fitting epitaph, perhaps, for one of the finest and most popular officers in the PAF. Sqn Ldr Ahmed was awarded a posthumous Sitara-e-Jurat for 'his exemplary leadership, courage and valour'.

This was the only loss to be suffered by No 32 Wing during its close support operations, which eventually totalled more than 400 of the 481 ground attack sorties flown by PAF F-86s during the 22 days of hostilities. After the attainment of air superiority by the PAF, in fact, the Sargodha Sabres alone averaged around 30-40 close support sorties per day. This was a far cry from the original PAF estimates, which envisaged a maximum possible commitment of about a dozen F-86s for Army support. And the maintenance of this effort was due, in no small way, to the hard work and skill of the ground crews, who kept the F-86 strike force at such a high state of availability.

Nearly every Sargodha Sabre was hit at least once during these ground attack missions, but this did not prevent them from spending up to 30 minutes at a time over their targets. Several prolonged attacks were made during the Chawinda strikes of mid-September, for which the Sargodha Sabres carried two 200 US gallon drop tanks in addition to their rocket and gun armament. On one of these missions, in the evening of 15 September, during his last attack against Indian Army targets in the Sialkot sector, the F-86 of the wing leader, Wg Cdr Masood Sikander, was hit in the starboard windscreen panel by a bullet or shell, which missed him by a hair's-breadth and went straight through the canopy on the other side. Because of the poor visibility on the ground, the smoked visor of his protective helmet was raised, and his face and eyes were peppered with tiny fragments of glass and plastic. Despite being half-blinded by the splinters, cordite fumes, slipstream and by blood, Wg Cdr Sikander nursed his Sabre back to Sargodha where he landed safely.

Intensive ground fire did not prevent PAF strike force Sabres from knocking out no fewer than 10 tanks, 136 vehicles and two guns on 15 September between Chawinda and Samba. About 30 of the vehicles destroyed were in a single convoy on the Samba-Bajpur road. On the following day, when some 600 tanks were locked in battle as the enemy attempted to break through the Chawinda-Jassoran gap, a further 18 tanks, 26 vehicles and 12 guns were destroyed by PAF strike aircraft. During these operations, misleading messages were broadcast by the Indian forces over the UHF frequency used by the Sabres warning of Gnats on their

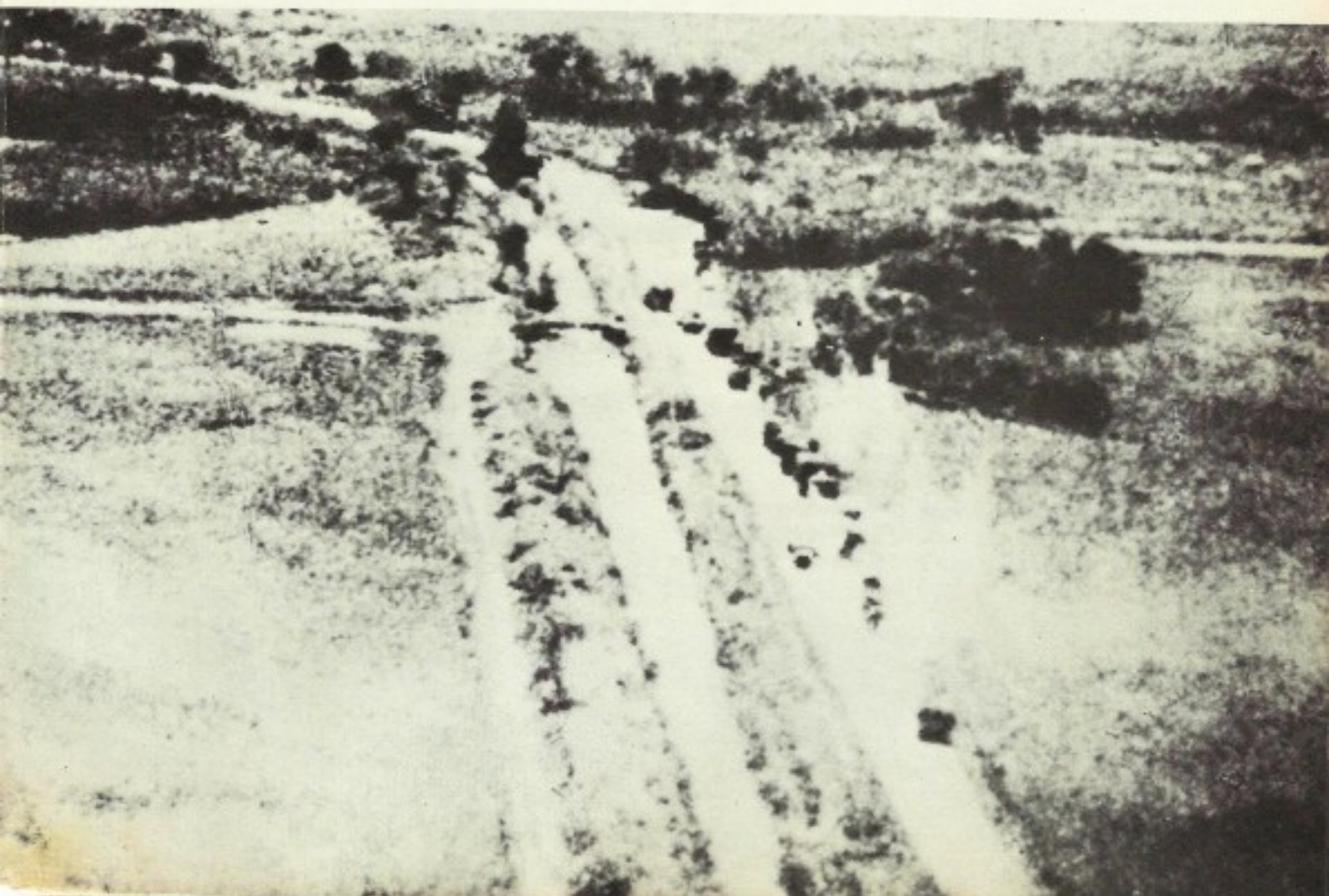
tail or telling them that they were attacking PakArmy vehicles. An Indian liaison aircraft was then spotted parked under some trees, and after it had been blown to pieces by the F-86s, the messages abruptly ceased.

During the following days, the PAF Sabres continued to play a decisive part in the Battle of Chawinda, which became a graveyard for the enemy's Centurion tanks. And despite sporadic sorties, the IAF was powerless to intervene, as indicated by the conspicuous lack of contact with enemy aircraft experienced by the PAF strike force. One of the few encounters which did occur happened on 19 September, when a section of four Sabres led by Sqn Ldr Azim Daudpota were interrupted during their attacks on Indian armour in the Alhar (Sialkot) area, on which they had expended most of their ammunition, by the arrival of a similar number of IAF Gnats.

A brief warning of impending enemy air interference was relayed to the Sabres by the PakArmy forward air controller, despite the limitations of radar at low altitude, and a break to the left was called by Sdn Ldr Daudpota who recalls:

'We punched tanks and my Numbers 2 and 3 broke hard away from the Gnats. But before they could get clear, my No 3, Flt Lt S. M. Ahmed, received several hits around the tail of his aircraft from the twin 30mm cannon of one of the Gnats. Fortunately, Flt Lt Ahmed was able to get his Sabre back to base. In the meantime, I saw two of the

Below: A Sabre-pilot's view of an Indian army convoy under attack in the Chhamb sector.



Gnats breaking off to the right. I immediately reversed to get behind the second enemy aircraft, but it was too fast for my Sabre. I kept up the pursuit for some time, but eventually it got away. My No 4, Flt Lt Saiful Azam, who had earlier lost contact with the formation, managed to get behind one of the Gnats, and shot it down. The pilot, Flt Lt Maya Dev, ejected and was captured by our troops.'

As it turned out, honours were more or less even in this combat, since although Flt Lt Ahmed got his damaged Sabre back to Sargodha, it failed to respond to the controls when landing, and stalled in and crashed on the end of the runway from about 20ft. Miraculously, Flt Lt Ahmed was thrown clear when the F-86 hit the ground and exploded, and he was rescued amid a hail of sporadic fire from his own guns. He was unconscious for a day or more, but eventually recovered. PAF claims for 19 September, in addition to the Gnat, included 19 tanks and six vehicles destroyed.

The subsequent official Indian version of this air combat was that the four Gnats, led by Sqn Ldr Denzil Keelor, with Flg Off Rai as his No 2, Flt Lt V. Kapila as sub-section leaders, and Flt Lt Maya Dev as the No 4, were detailed as escorts for four Mystère IVAs scheduled for close support in the Chawinda area. It continued: 'Suddenly Maya Dev called out a warning that four Pakistani Sabres were approaching to attack the Mystères. The four Gnat pilots spotted the Sabres on their left above them at about 4,000ft. Denzil Keelor and his pilots were a bare 300ft above the ground... but started a shallow left-hand turn... and the Indian squadron commander ordered Kapila to engage the nearest Sabre.'

Despite violent evasive action by the Sabre, Kapila's Gnat was reported to have got on to its tail. After the Indian pilot had jettisoned his drop tanks, he 'slipped into a firing position and reducing the distance to 500 yards gave a short burst — which at once went home.' The Sabre was then said to have slowed down, and Kapila fired again from 300 yards. This is long-range shooting, even for 30mm cannon. Kapila admits that he did not see the F-86 hit the ground, but Keelor and Rai, who had been following him and Maya Dev, 'watched the end of the Sabre. After Kapila's second burst, it spun and hit the ground exploding on impact. Keelor called out to Kapila confirming his kill.'

Flt Lt Ahmed's Sabre certainly did hit the ground, but not before it had flown all the way back to Sargodha. And the Indian account does not explain how Gnat pilot 6508 Flt Lt V. M. Maya Dev came to join the ranks of Indian prisoners-of-war in Pakistan on 19 September. It does go on, however, to claim that another Sabre in this formation was also shot down, by Sqn Ldr Keelor. This was also reported to have been hit from a range of 'less than 500 yards,' which is pretty fancy shooting. 'A couple of bursts... were enough to send the Sabre crashing to the ground. It was only when the Sabre hit the ground that Keelor realised that he himself was skimming the tree tops.' The only problem with this Indian claim is that the PAF have no record of losing another Sabre that day. It was from this type of inconclusive evidence that Indian

propaganda created the legend of the Gnat as a 'Sabre-Slayer'.

After the Battle of Chawinda, which proved a blood bath for Gen Chaudhuri's Indian Army, India pleaded its case for an unconditional cease-fire at the UN. Pakistan agreed, with some reluctance, 'to prove to the world our determination to pursue the path of peace.' But even while the final arrangements for a cease-fire were being negotiated, the Indian Army launched a major offensive in the Lahore and Khem Karan sectors on 21 September, in a last despairing effort to rectify its image of overall defeat by numerically inferior forces. Although the Indian request for a delay of 15 hours in the implementation of the cease-fire, due to take effect on 22 September, was ostensibly to allow the order to filter through to all its army units, it was widely interpreted in Pakistan as merely attempting to gain extra time for these last-ditch assaults.

Having failed to advance again across the BRB Canal towards Lahore, the Indian Army instead brought up its heavy guns on 21 September between Jallo and Attari in a vindictive attempt to shell the capital city. For the last couple of days of the war, therefore, the main PAF strike effort by day and night was directed towards neutralising this heavy artillery, starting at 05.00hrs on the 21st with attacks by eight Sabres from No 32 Wing at Sargodha. Four of the F-86s, commanded by Sqn Ldr Daudpota, were armed with rockets, and the remaining four, led by Flt Lt Aman, were carrying Napalm. On this occasion, the approximate location of the enemy guns was marked by PakArmy artillery with green smoke, and, despite attempts by the Indians to divert the PAF aircraft by false smoke signals and alarm calls over the RT, the strike was made with great accuracy and success. With four other missions by the Sargodha Sabres against Indian artillery that day, the PAF claimed a total of 15 medium and five heavy guns destroyed, together with two tanks and a number of vehicles, on 21 September. A personal message of congratulation was received by Sqn Ldr Daudpota from Maj-Gen Sarfraz Ahmed Khan, GOC Lahore area, in appreciation of the successful strikes around Attari.



Below left and right: An AMX-13 tank of the Indian Army which had been knocked-out by PAF Sabres of No 32 Wing from Sargodha, where the station commander, Grp Capt Zafar Masud, is also seen debriefing some of his pilots.

Below: Soviet equivalent of the Lockheed Hercules, the Antonov An-12 transport was in widescale IAF service in 1965 and played an important part in providing logistic support for Indian air operations. It appeared, however, that over-enthusiastic action on the part of Indian ground personnel resulted in one of the IAF An-12s being shot down near Delhi by a 'friendly' SA-2 'Guideline' SAM.



Close support was also provided by the Sargodha F-86s in the Gadro-Dali sector during the day, where three tanks, a troop carrier, four ammunition trucks and other vehicles were destroyed. Attacks on the Indian artillery were continued overnight with heavy bombing by the PAF, which resumed its close support sorties in the Attari, Wagah and Khem Karan areas on 22 September. Wagah, of course, was where No 32 Wing had come in, with its first ground attack sorties on 6 September, and its pilots were there at the end, with a further five tanks and 12 vehicles to add to their kills. The final Indian attempt to retake Khem Karan was checked with PAF assistance on 22 September when two tanks, one medium gun and several vehicles were destroyed by the Sargodha Sabres.

It is a surprising fact that on the last day of operations, the PAF flew more close support sorties than ever before, totalling 68 in all, after the enemy had brought up major reinforcements towards Attari in an attempt to clear the bridgehead on the eastern bank of the BRB Canal. As usual, no losses were experienced by the PAF, although an IAF Hunter was shot down over Khem Karan by PakArmy flak. Its pilot, Flt Lt Cariappa, the son of an Indian General, was taken prisoner by Pakistani troops. He was the seventh and last Indian pilot to be captured in Pakistan. Two tanks and two guns were destroyed by another mission in the Attari sector, where four B-57s also dropped 28 1,000lb bombs in a daylight attack on enemy armour and other vehicles concealed under trees and bushes to help break up the Indian offensive. Apart from the heavy toll exacted by the PAF close-support Sabres from Indian resources of fighting vehicles, the expenditure of some 350,000 rounds of 0.5in machine-gun ammunition in strafing attacks must have resulted in a very large number of casualties among enemy troops.

At 23.02hrs, the PAF flew its last sortie of the 1965 war, which came to an official end with the implementation of the cease-fire at 03.00hrs on 23 September. The contribution of No 32 Wing to victory was acknowledged by the award of the Sitara-e-Jurat to four of its key personnel, comprising Sqn Ldr Daudpota and Flt Lts Syed Mansoorul Hassan Hashmi, Ammanullah Khan and Saiful Azam. In the extreme south, the small close-support Sabre force under Sqn Ldr A. A. Randhawa, operating from Mauripur, completed 33 missions against Indian Army targets in the Rajistan area with some success, claiming up to 30 tanks and 150 vehicles destroyed or damaged, as well as helping to disrupt the enemy build-up and his lines of communications. Most of the Mauripur F-86 effort, however, was directed towards CAP and air defence, which together accounted for 160 sorties.

In the north of West Pakistan, No 19 Squadron continued its close support activities throughout the war, under the redoubtable 'Nosey' Haider, flying a total of 571 sorties. After the critical events of 7 September, most of No 19 Squadron's efforts were devoted mainly to ground attack rather than air defence or CAP, although a number of its sorties also resulted from counter-air commitments, as related in a subsequent chapter. Targets were passed to the squadron from Air HQ, but specific details of tactics were left to the unit commander. One solution adopted by No 19 Squadron to the problem of

target location was simply to go in low and head towards the heaviest ground fire.

Like the other Sabre squadrons, the Peshawar unit found the Indian AA extremely heavy but not very effective, and it soon lost even its deterrent value. No fewer than 21 hits by ground fire — mostly from small arms — were registered on its 20 aircraft, but No 19 Squadron was unique among the PAF Sabre units in not losing a single machine from its establishment during the entire period of hostilities. This was all the more remarkable from the diversity and intensity of its attacks, reflected in it being credited with 14 aircraft destroyed and six damaged, 74 tanks destroyed and 68 damaged, and 140 vehicles and 16 guns destroyed as well as 12 vehicles damaged from its total wartime claims.

Typical of its close support tasks were the missions in the Ramgarh Nala area, near Pathankot, in Indian-held Kashmir, on 8 September, when a concentration of Indian armour and refuelling vehicles were attacked with guns alone. Range would have been inadequate if rockets had been carried, but considerable havoc was wreaked with the 0.5in Brownings before the squadron broke off to call up the night bombers to take over. No 19 Squadron also found, when it ran out of rockets on one particular mission, that the ubiquitous 0.5in machine-guns of the Sabre could be quite effective as an anti-tank weapon, if the streams of API and other ammunition were directed accurately at the engine cooling screen behind the turrets of the AFVs. The heavy bullets would invariably penetrate the slats protecting the coolant radiators and ignite the fuel fumes, causing the tank to catch fire. A number of Indian tanks were subsequently destroyed with machine-gun armament, using this technique.

Range was a perpetual problem for No 19 Squadron from its Peshawar base, and with normal fuel margins, could have limited attacks to a single pass over most Indian targets. In peacetime operation, any Sabre down to about 700lb of fuel for landing could claim priority, although this amount was sufficient for three or four more circuits. As a result of careful fuel gauge calibration in the F-86 during test-flying duties before the 1965 war, 'Nosey' Haider had established that the Sabre fuel contents could be accurately judged to within about 100lb, so that this margin could be substantially reduced if necessary. After the outbreak of hostilities, if the importance and location of the target made it necessary, the minimum fuel for landing was accepted at as little as 400lb, which was just about enough for one safe overshoot from a baulked approach. But on many occasions, the Peshawar Sabres had to recover at Sargodha because they had insufficient fuel to get back to their home base.

Like the other Sabre ground attack units, No 19 Squadron found its close support effort steadily increasing towards the end of hostilities, when it was flying up to 16 strike sorties per day. On 22 September, the Peshawar Sabres joined in the concerted effort against the enemy tanks and guns at Attari, using both rockets and guns. Sections of four Sabres released their rockets singly and in salvos to destroy three tanks and a dozen vehicles, but Indian AA fire around this target was so heavy that the PAF attacks eventually had to be broken off.

15. Countering the IAF Night Offensive

After its disastrous losses of 7 September, the Indian air force never again attempted daylight strikes against the PAF air bases. Instead, the IAF used its substantial force of about 60 Canberra B(I)58s to maintain the main Indian counter-air effort by prolonged night attacks against Pakistani airfield and other military (plus a few civil) targets. In fact, from 6 September onwards, the IAF Canberra force attacked the PAF airfields in West Pakistan on all but three nights of the war.

Broadly speaking, of course, similar tactics were adopted by the PAF B-57s with the same object of conservation of force while maintaining some counter-air pressure on the enemy. The move towards night attacks by both sides was accelerated by the joint lack of a suitable air defence system in darkness and bad weather, compared with the effective and relatively sophisticated environment prevailing during the day. Neither side had any real night fighters and Pakistan, in particular, lacked radar-directed medium or heavy anti-aircraft guns around its bases until the closing stages of hostilities. All the medium- and high-level AA guns had been mothballed on the assumption that the PAF alone could look after the high-altitude threat, and they were not withdrawn from storage until this deficiency became apparent.

During the night of 12/13 September, for example, one battery of heavy AA guns was installed at Sargodha, but its fire control radar could not be made operational at the same time. Sargodha was nevertheless the most heavily defended of all the Pakistani bases so far as ground fire was concerned, with 64 guns, in four batteries of 16, of the total of 192 deployed by the PAF. Mauripur was next, with 48 guns in three batteries, which also had some responsibility for the defence of Karachi, followed by single batteries of 16 guns at Peshawar, Sakesar, Badin, Korangi Creek (a technical training base near Karachi) and Dacca (East Pakistan).

Although most of the Sargodha ground defences comprised light AA guns, without radar direction, the

intensity of fire was such that only two bombs released by the IAF Canberras during their virtual non-stop attacks in the course of 14 nights, reached the airfield. During a routine visit to Sargodha during the war, the ACAS (Ops), Air Cdre (now Air Marshal) Rahim Khan watched one night raid and heard the IAF Canberras circling round, but they would not brave the curtain of flak put up by the PAF ground defences. Eventually they pulled up and dropped their bombs four or five miles away, to explode harmlessly in neighbouring fields.

This became the normal pattern for the IAF Canberras, which were estimated to have dropped around 90 tons of bombs in the vicinity of Sargodha. Of this total, one 1,000lb bomb landed about 100ft from the runway intersection, without damaging the runways themselves, while the second, which was a 4,000lb World War II 'block-buster', dropped quite close to the main fuel storage tank at Sargodha. The tank contained around 1,600,000 gallons of highly inflammable jet fuel but, fortunately for the PAF, this one well aimed Indian bomb failed to explode. Like the Pakistanis, the IAF was using British bombs of WWII vintage and most of the Canberras carried as their normal internal load ex RAF 4,000 pounders originally destined for the Battle of Berlin.

The reliability of these more than 20 year old weapons was extremely poor, but the IAF undoubtedly also experienced bad luck in their Canberra attacks, apart from their indifferent execution. At Peshawar, for example, which was also attacked nightly by the Canberras, the IAF achieved little more success than at Sargodha, although one of the few Indian bombs to land on the airfield was only a few yards away from wiping out almost half of the entire PAF B-57 force.

This was on the night of 13/14 September, when the IAF delivered one of the only really effective Canberra attacks of the war. After dropping flares to illuminate the area, a single Canberra came in low along the main runway at about 200ft, pulling up and then turning back

to drop its 4,000lb bomb at the end nearest the parked aircraft. Peshawar, at that time, was packed with *bombers, fighters and support aircraft, including no fewer than 16 B-57s of No 31 Wing, lined up almost wing-tip to wing-tip, fully fuelled and loaded with bombs.* Many of their crews, too, were watching from nearby trenches having just returned from the usual airfield strikes. If only one of the B-57s had exploded, the whole lot would probably have gone up, but as luck would have it, the 4,000 pounder hit the bitumen runway shoulder where much of its tremendous destructive force was dissipated in the adjacent soft soil. There was also a small building in between the point of impact and the flight line which completely screened the parked aircraft from most of the blast and fragments. 'Had that bomb dropped just about 200ft to the right', estimates Wg Cdr Akhtar, who was among the B-57 crews watching with professional interest from adjacent slit trenches, 'we would have had tremendous fireworks. I think we would have lost about half of our B-57 force, and probably about half of our F-86s at Peshawar. As it was we were able to take off within half an hour or so of this raid, by keeping to the left side of the runway.'

Not one aircraft, in fact, was damaged at Peshawar, although on the following day All-India Radio claimed 40 aircraft destroyed as a result of this raid. The runway at Peshawar was completely serviceable again in a couple of hours, although the attack did provide a forcible reminder to at least one B-57 pilot at Peshawar of the demoralising nature of prolonged night airfield strikes. Sqn Ldr Najeeb Khan found the dust and smell of cordite and TNT 'pretty distasteful', which gave him fresh heart to continue his share of the PAF night offensive against Indian airfields. In the PAF Museum at Peshawar, a base plate inscribed 'HC Bomb Mk IV, 4,000lb, 1944' and bearing the British War Department arrow, is the sole reminder of that eventful night in 1965. Somewhere in India, too, there is a former IAF group captain who has the professional admiration of most of the PAF for one of the best-executed enemy attacks of the 22-day war.

With one or two exceptions, the absence of IAF success with its Canberra strikes, was due mostly to the fact that the enemy bomber crews would not press home their attacks below the reach of the PAF light flak. They nearly always stayed at about 8-9,000ft, to which they usually pulled up after a low-level approach from the Pakistani border. Although the IAF started off by staying at high altitude — around 30,000ft or so — for its first Canberra raids, it soon changed to a hi-lo-lo-hi mission profile for improved chances of survival rather than better target identification and bombing accuracy. The intruding Canberras would be picked up on their way in by the PAF radar at about 25,000ft, only for contact to be lost when they dived down to low level over Pakistani territory. Contact was briefly regained during their pull-up to around 10,000ft, but after they had released their bombs, they would stay low until reappearing on the PAF radar screens when about 150 miles out from Sakesar.

The complete lack of defensive capability in the air at night was of considerable concern to the PAF C-in-C, who sent the late Air Cdre (then Grp Capt) F. S. Hussain to Peshawar to evolve night interception techniques with the F-86 Sabre. This became possible by the use of the

Sidewinder missiles on the F-86, after the fighter had been vectored on to the enemy aircraft by the GCI radar. Having no radar of its own, the Sabre was dependent on the infra-red homing unit of the Sidewinder, which would lock on to a target if the F-86 could be directed to within a couple of miles astern of it. Once the missile tone came in, indicating that its infra-red unit had locked on to an enemy aircraft, the idea was to launch the Sidewinder blind, and rely on its homing and 35ft proximity fuse to do the rest.

At best this was a stop-gap measure designed to give the IAF Canberra crews something else to worry about rather than to guarantee their interception. Visual contact by the Sabres at night was almost impossible to achieve, and missile tone was not necessarily a reliable indication that the Sidewinder was locked-on to a target. Nevertheless, within its considerable limitations, the use of the F-86 as a night-fighter proved to be justified by at least one confirmed victory against the IAF Canberras.

For its main night-fighting role, however, the PAF was forced to rely on its small force of F-104A Starfighters at Sargodha in No 9 Squadron, commanded by Sqn Ldr M. Arif Iqbal. The F-104A was the only PAF fighter with night-capability, resulting from its AN/ASG-14T1 fire-control system, which incorporates a radar scanner in the nose cone. As a single-seater, however, the F-104A is far from ideal for night-fighting, despite its very high performance and heavy armament of a six-barrelled 20mm Vulcan cannon and two wing-tip Sidewinders. It is somewhat critical and unforgiving to fly by day, let alone at night, and its approach speed for landing of no less than 195mph leaves little room for errors of judgement.



Even then, this very high landing speed is achieved only with the use of boundary layer control or flap-blowing, to augment the lift of the Starfighter's razor-thin wings.

Fortunately, the pilots of No 9 Squadron were extremely proficient with their aircraft, having nursed their 10 F-104As and two unarmed F-104B two-seat trainers zealously from the time they received them, in 1960, without guns and with stall-prone engines. By 1965, most of the pilots in No 9 Squadron had 800-1,000hr on the Starfighter, which is a lot of experience with a high-performance fighter, and the F-104s themselves had been modified to take their Vulcan cannon, as well as the later stall-free J79-GE-11A engines plus arrester hooks beneath the rear fuselage for engagement of the runway emergency arrester wires.

As pure high-altitude interceptors, the PAF F-104s had been on air defence alert by day and by night since the Rann of Kutch crisis, when a detachment had operated from Mauripur. There they were often called upon to patrol within about 20 miles of border activity, but their pilots never saw any enemy aircraft. After 1 September, of course, the F-104s were extremely active in air defence and air superiority operations, but of 246 missions flown by No 9 Squadron during hostilities, 42 were at night against the IAF Canberras. For many of the F-104 pilots, these were the first night interceptions they had practiced, although basic night flying in the Starfighter was no novelty.

First attempts by the F-104s at night interception of IAF bombers operating at high altitude against Rawalpindi (where a few civilians were killed) and Sargodha on 6/7 September were unsuccessful because of

continual evasive action taken by the Canberras. Constant changes of height and the stream tactics adopted by the IAF aircraft resulted in Sakesar being unable to cope with the multiplicity of targets. Although the IAF continued to operate on a stream basis, with 8-10 aircraft at a time, it soon became clear that it was necessary to concentrate on one individual intruder if successful interceptions were to be achieved.

A few Canberras also appeared in the Karachi area in the early hours of 7 September, and one or two F-86s were scrambled from Mauripur for attempted interceptions. Although no contact was made, intensive anti-aircraft fire from both Pak Army and Navy guns appeared to drive off the intruders before they could release their bombs.

In the light of subsequent IAF bomber attacks, which introduced the low-level element, the AOC Air Defence of the PAF, Air Cdre Masrur Hussein, decided that, from the night of 9 September, F-104s would be scrambled following MOU reports of approaching Canberras to fly

Below: The Indian air force used about 60 Canberra B(I)58 jet bombers to maintain the main counter-air offensive against the PAF by prolonged night attacks against Pakistani airfields and other military (plus one or two civil) targets. Main weapon carried by the Canberras when attacking PAF air bases was a single 4,000lb ex-British 'cookie' of World War II vintage. In this photograph of an IAF B(I)58, the small radome for the 'Orange Putter' tail-warning radar may be seen at the extreme rear of the fuselage.





high-altitude CAPs along a line between Kasur and Sulaimanki. The object was to intercept the IAF bombers as they climbed up on their return flights and were picked up again by Sakesar radar.

Complications to this scheme were added by the fact that the SOC radar was unable to give any worthwhile height indication much below 8-10,000ft within a radius of 50-60 miles from Sakesar. A further disadvantage with the F-104 was that its AI (Airborne Interception) radar was also ineffective because of clutter and ground returns below 3-4,000ft. By patrolling across the border over Indian territory, however, the F-104s stood a better chance of encountering the Canberras at high altitude, where they were forced to spend as much time as possible to achieve the maximum range and bomb load. The pressure of PAF B-57 counter-air strikes against IAF airfields had resulted in the Canberras being withdrawn to such rear bases as Ambala and Jodhpur, which meant that range became a major consideration.

Improvisation of the Sabre as a night-fighter enabled the PAF to use it at low altitudes, to complement the F-104 during the hours of darkness with a useful deterrent effect, if lacking real effectiveness. It was something else

to keep the Canberra's 'Orange Putter' tail-warning radar busy, and to distract the IAF crews who received additional information on other aircraft in their vicinity, from their own GCI stations. By forcing the IAF Canberras to operate for long periods at low levels, the PAF night fighters also limited the operating range and endurance of the enemy bombers, because of their increased fuel requirements. PAF night-fighting tactics were to scramble a couple of pairs of F-86s and F-104s against each wave of Canberras, which varied in strength from anything between one and 10 aircraft. To cover operations in the northern sector, two F-104As were usually positioned each night at Peshawar.

No contact was made, however, by either F-86s or F-104s during renewed initial attacks by the IAF Canberra force, of which seven aircraft dropped bombs around Risalawala, Chak Jhumra, Sargodha and Akwal on the night of 9 September. Sporadic attacks were also made without interception in the same areas, apart from Akwal, during the following night, and Sargodha received the usual ineffectual attention from six Canberras in the early hours of 11 September. Despite the almost non-stop night attacks, life at Sargodha had settled down to a



Left: For its main night-fighting role, the PAF was forced to rely on its small force of 10 Lockheed F-104A Starfighters of No 9 Squadron, using the radar of its AN/ASG-14T1 fire-control system, in conjunction with Sidewinder air-to-air missiles. Despite its many limitations at night, particularly in approach and landing, the PAF F-104s achieved several victories against IAF Canberras.

front-line routine. Sqn Ldr Wahidullah, in charge of aircraft repair and salvage at Sargodha, recalls:

'Everybody knew in advance whenever there was going to be a raid warning. About 5-7 minutes before the siren sounded, the thunder of an F-104 afterburner on take-off would alert the whole station. But nobody took cover in the trenches until the Canberras began dropping flares, and our light ack-ack opened up all round. And as soon as the guns stopped, everybody would get back to their jobs until the next attack. As the war developed, raid warnings were often received as frequently as every half hour. But by staggering the take-off times of its Canberras even further, the IAF could have ensured that nobody at Sargodha got any sleep at all throughout every night of the whole 14.'

Sargodha Station Commander Grp Capt Masud had three repair parties on permanent stand-by on the airfield, and was confident that any runway damage could soon be rectified. There was very little work for the repair parties to do, however, apart from one or two holes blasted in the airfield taxiways. Many PAF observers at the airfields under attack were puzzled by the fact that

although the Canberras invariably started off by placing their flares accurately over their targets, their bombs with few exceptions, were always well wide of the mark. Several of the few bombs which did manage to find their way on to the airfield at Sargodha then failed to explode. The only airfields in Pakistan, in fact, to be hit by IAF bombs were those near Campbellpore and at Rasalawala, which were disused and therefore undefended. In the opinion of Grp Capt Masud, however, the enemy night raids represented a considerable strain on PAF resources, and there was the added apprehension of never knowing when a stray bomb might hit something sensitive.

Sargodha was spared the attention of the IAF on the night of 11/12 September, when the Canberras made a rare incursion against civilian targets in the Multan and Nawab Shah areas. There is some doubt whether these attacks were deliberately aimed at non-military objectives, but it was at this time that Theatre was contacted by the Pakistani Foreign Minister, and Air Cdre Rahim Khan was informed that the IAF had bombed Karachi. Immediate retaliation was demanded from the PAF by bombing Delhi, and Air Cdre Rahim Khan promised to pass on this request to the C-in-C. Air Marshal* Nur Khan's reaction was predictably cautious and he insisted that the story of an IAF attack on Karachi be checked before any further action. His view was that the Indians would not be so stupid as to start the deliberate bombing of non-military targets, and enquiries to the station commander at Mauripur confirmed that his suspicions had been correct. There had been no bombing raids against Karachi, and PAF B-57 crews continued to receive strict instructions to avoid at all costs any possibility of attacking civilian targets.

Soon after midnight on 13 September, and again at about 03.30hrs, 10 IAF Canberras struck at Sargodha and the Lahore area, again with no evident results. This occasion, however, appears to have been the first on which positive contact was made by the PAF night-fighters with their elusive enemy. Flt Lt Amjad was positioned in an F-104 by Sakesar behind an IAF Canberra and heard the growl of his missile tone as the Sidewinder infra-red unit locked on. He squeezed the trigger, but instead of the usual meteoric streak of a missile launch a fraction of a second later, there was no reaction whatsoever. He hurriedly pressed the red button on the control column to unleash the mighty punch of the 725 rounds of 20mm shells from his Vulcan cannon, but again there was no reaction. Complete electrical failure in the armament system of the F-104 saved the IAF

*The C-in-C was promoted from Air Vice Marshal to Air Marshal on 10 September by President Ayub Khan in recognition of the achievements of the PAF.

Canberra from virtually certain destruction. It was poor consolation for Flt Lt Amjad to hear, after landing back at Sargodha, that according to All-India Radio, his base had been blasted off the map by the IAF, which had relegated it to 'past history'.

For once, too, the Indians seemed confident enough of their own claims to give Sargodha a rest for a few nights, and to turn the attention of their Canberras to Peshawar and other targets. Their attack on the night of 13/14 September, in fact, was one of the most ambitious and determined of the war. Immediately after midnight, a force of 15 Canberras was reported to be approaching Pakistan by the outer defence belt, and Air Defence HQ began to assess their most likely target. This process was complicated by eight of the Canberras breaking off, but it was soon evident that these were operating only as a diversionary force. From their tracks and heading, it also became apparent that the remaining seven Canberras were not, for once, aiming at Sargodha, and raid warnings were therefore flashed to Peshawar and Rawalpindi.

Five of the enemy bombers then headed towards Peshawar, where the first arrived at exactly 01.00hrs, while the remaining two attacked the former PAF airfield at Kohat. Only one Canberra braved the intense AA fire around Peshawar, and succeeded in delivering its 4,000 pounder, as already related. The others dropped flares before their attacks, which resulted in several bombs falling in the Peshawar cantonment area, at Garhi Arbab, alongside the airfield, causing the death of no fewer than 57 civilians. Most of these were women and children.

It was immediately after this raid that the first decisive encounter between a Canberra and a PAF night-fighter took place. One of the Peshawar intruders was intercepted during its high-level exit by a Starfighter flown by Sqn Ldr Middlecote, from Sargodha, under the directions of the SOC at Sakesar. This was a completely blind interception in which a Sidewinder missile was released from the F-104 when positioned by radar about a mile behind the enemy aircraft. Missile tone indicated acquisition of the target, and an explosion was seen at a range of about 4,000ft. This was an indication that the proximity fuse of the Sidewinder had fired, and the Canberra was assumed to have been destroyed, although confirmation was not possible since the encounter took place over Indian territory.

Two more radar contacts were made at night by an F-104 flown by Flt Lt Aftab Alam, but each time the tail-warning radar of the Canberras enabled them to take evasive action. The fact that the IAF had not lost a Canberra, so far as is known, during their night operations until this late stage should have encouraged the Indian crews to be more aggressive in their attacks. No Canberra was ever shot down by PAF anti-aircraft fire during the night missions against airfields, mainly because the IAF aircraft usually took care to stay out of range. It was probably because Peshawar had only one quarter the number of AA guns compared with Sargodha that the attention it received from the IAF Canberras was more effective. Even then, the worse damage it suffered, after the 4,000 pounder was dropped on 14 September, was from another bomb the following night which destroyed the old OC Flying's office. This had been

abandoned, but fragments from the bomb or its debris also punctured the fuel tanks of a nearby B-57. This was repaired and made serviceable again, however, in about an hour or so.

One of the few Canberras to be active during the early hours of 15 September became the first victim of the PAF Sabres in their night-fighter role. The Pakistani pilot involved on this occasion was the redoubtable Flt Lt Cecil Choudhry, who had been the sole survivor of the ill-fated dusk strike against Halwara airfield at the start of the war. Flt Lt Choudhry's report of the combat was in the following terms:

'I was scrambled at about 00.20hrs on 15 September from Sargodha against a specific incoming target, under the control of Flt Lt Farooq at Sakesar. It was a moonlit night and I was directed to orbit base at about 10,000ft, above the height of our light AA. This suddenly opened up and I looked around for the enemy aircraft, but all I saw was a couple of bombs exploding in the airfield area. As usual, they caused no damage, but when the Canberra began its exit, I was vectored towards our landing strip at Risalawala for an interception. I was flying at about 14,000ft and Sakesar told me that my target was approaching Risalawala, climbing through 11,000ft. After flying a series of headings, climbing all the time, I was positioned at 90 degrees on the target's beam, by which time we had reached about 23,000ft.

'As I wanted to try and make visual contact with the Canberra against the moon, I reduced my rate of climb to stay below the enemy aircraft, while turning on to its track to close the range. Sakesar told me the target was then at my 12 o'clock position, four miles ahead, and I asked for a check when our separation had fallen to about half a mile. The presumed Canberra levelled off at 31,000ft cruising at about Mach 0.7, and I stayed at around 28,000ft accelerating to Mach 0.87. Visibility was good enough on the ground to identify Lahore, Amritsar and the Beas River below, but I still had no visual contact with the target or its contrails* when control gave me the half-mile warning.

'As I began gently pulling up through 30,000ft I heard the first missile tone as the infra-red unit began locking on. I was anticipating some evasive action from the Canberra, as we knew the IAF radar monitored their aircraft at all times, and I estimated that it would probably make a diving left-hand turn to escape. But in the meantime, as soon as I heard the first missile tone, I fired the first Sidewinder blind and waited for results. It eventually self-destructed so long after release that I knew it must have missed, but control then told me to turn left and descend as the target was taking the predicted evasive action.

'At 29,000ft, I got a good missile tone, but no visual contact. When I fired the second Sidewinder, from beneath the starboard wing, I watched it tracking away until about three seconds later there was a moderate explosion. Sakesar then reported the target descending

* A contraction of condensation trails, which are left by high-flying aircraft through the condensing-out water vapour in the icy air from engine exhausts and wing-tip and wake turbulence.

extremely rapidly, and at the same time warned me that I was getting rather far from base — about 150-160 miles — and that other aircraft were heading in my direction. I wasn't worried about being intercepted in turn, as I knew the IAF had no night-fighters. Control watched my target fall on radar until it was lost in the ground returns, but I only claimed it as probably destroyed. Next morning, however, All-India Radio admitted that one IAF aircraft was missing from the night's operations against various airfields in Pakistan, and since mine was the only claim, I was credited with the destruction of the Canberra. It presumably hadn't burned or exploded in the air because of the small amount of oxygen present at that sort of height.

'I flew another mission before dawn and chased a Canberra around Risalawala at fairly low levels for about 30 minutes without ever seeing it. Whenever our radar positioned me behind it, the Canberra would break away violently. I think the IAF Canberras have passive tail warning radar which only indicates when a fighter's AI radar is locked on, so this chap must have been warned by his ground control. Anyway, he strafed the deserted landing strip at Risalawala, dumped his bombs about five miles away, and called it a day.'



Left: Flg Off G. O. Abbasi flew into the ground at over 200mph in a Starfighter after a night patrol when attempting to land in a dust-storm at Peshawar, and his aircraft exploded in a ball of fire. He was thrown clear still strapped to his ejection-seat and suffered only minor injuries.

Above: Officer Commanding No 9 (Starfighter) Squadron during the 1965 war was Sqn Ldr Arif Iqbal.



This was the only confirmed victory gained by a Sabre at night, although there were several other inconclusive engagements. At Peshawar, for example, Sidewinder-armed Sabres of No 19 Squadron were scrambled almost every night on air defence missions, and patrolled under radar directions around the airfield at about 7,000ft. Only on one occasion, however, did a Peshawar Sabre get close enough to warrant launching its GAR-8 missile, but without apparent results. On at least one occasion, an IAF Canberra fired back at a PAF night fighter — in this case, an F-104 — with its belly-mounted 20mm cannon but, not unnaturally, without effect.

Later on 15 September, Canberras made one of their rare daylight appearances when with a heavy escort of Gnat fighters, they bombed PakArmy positions and troop concentrations around the border town of Kasur. Much of the PAF F-86 force was then engaged on intensive close support missions against enemy armour in the Sialkot sector, but in any case, the Indian bombers did not hang around Kasur long enough to invite interception. There was then something of a lull in Canberra operations until the early hours of 17 September when six aircraft resumed the ineffectual assault, in poor visibility, against Sargodha.

Not that all the hazards of normal night operations were entirely on the Indian side. After an attempted interception before dawn on 17 September from Peshawar, an F-104 flown by Flg Off G. O. Abbasi found his base blanketed by a severe dust storm on his return. Groping his way down in the pitch darkness with the Starfighter's characteristically long flat approach using lots of power, Flg Off Abbasi undershot the runway and flew full tilt into the ground at a speed of well over 200mph, his aircraft exploding in a ball of fire. Miraculously, he was thrown clear as his aircraft disintegrated, still strapped to his ejection-seat, and was only slightly hurt.

No 9 Squadron was able to restore the balance in its favour, however, as a result of continued enemy attacks almost every night on Sargodha. On the night of 21 September, an F-104A flown by Wg Cdr A. Khan Jamal, formerly commanding No 9 Squadron to which he was recalled from Staff College at the outbreak of war, intercepted a Canberra at about 33,000ft and shot it down with a Sidewinder near Fazilka, inside Pakistani territory. Although the navigator failed to escape the IAF pilot, Flt Lt M. M. Lowe, ejected and was captured by PakArmy forces and was able to give some details of the unsuccessful end to his mission.

It seems that a fuel shortage caused him to start the climb out for his return to base rather earlier than usual, which is how he came to encounter the F-104 before reaching the border with India. His Canberra was fitted with tail-warning radar, but this had been switched off at low altitude because it then beeped almost continually from ground returns. When exiting, he had forgotten to switch it on again for the climb, and was thus unaware of the F-104's presence. Wg Cdr Jamal was positioned behind the Canberra by Sakesar, and soon picked up the target on his own radar. When the range dropped to just over a mile, he fired one Sidewinder, and watched it home all the way to impact on the starboard jet engine of the Canberra. He recalls:

'It was pitch black and I had no visual contact with the Canberra until the flash of the missile strike. The Canberra didn't blow up, neither did it catch fire, probably because of the high altitude. But it started spiralling down, and then flames started coming out of it when it had got down to about 15,000ft. I circled round and watched it until it hit the ground. I felt good, but when the Indian pilot was picked up he said he thought the whole business was "very unfair". If anything it was particularly unfair on his navigator, since no ejection-seat is provided for him in the Canberra B(I)58, and he couldn't get out.'

This was the last night raid to be undertaken by the IAF Canberra force, which achieved a grand total of one B-57 slightly damaged, one runway holed, and two small airfield buildings destroyed, plus some civilian casualties and destruction to show for its entire campaign. The precise losses incurred by the IAF to achieve these questionable results have never been revealed, although postwar Indian claims were that only one Canberra did not return, from nearly 200 sorties. If PAF experience is any guide, however, casualties through accidents tend to exceed those suffered as a result of enemy action. At a conservative estimate, the IAF could well have lost up to six Canberras, or 10% of its active bomber force, in the night campaign. Perhaps the most pertinent comment on the effectiveness of the Indian night attacks came from AVM Yusaf, at Air HQ. He recollects the biggest hazard of the night war as the traffic hurtling around the roads without lights in the total blackout.

Although the Canberras did not appear again in strength at night after 21 September, on the same day they launched one final attack in strength, with a fighter escort, against the PAF radar station at Badin, with devastating results. Once again, the PAF appears to have received little warning of the arrival of the Indian force, which included an escort of Gnats, and encountered no air opposition whatsoever. With only moderate fire from light AA guns as a deterrent, the Canberras made systematic attacks on the Badin installations with 4,000lb bombs, rockets and their 20mm cannon, strafing the adjacent village in the process.

Sweeping in at low level, with only five or six minutes' warning, the Canberras succeeded in completely destroying the FPS-6 radar installation, although the larger FPS-20 remained in operation. The damage would have been heavier still had not about half the IAF bombs failed to explode. As it was, however, the IAF Canberras undoubtedly scored a resounding success, particularly as it was achieved without loss to the attacking forces. But one of the slightly puzzling features of this attack was why Badin, in the extreme south of West Pakistan, which had played relatively little part in the air operations, was singled out for particular attention in preference to Sakesar, as the key PAF radar site. Inglorious though it may seem, the explanation appears to be that Badin, in the remote Sind, could call only on the F-86s at Mauripur, some 110 miles further west, for its defence, whereas to reach Sakesar, the IAF would have had to fly about 45 miles past the hornet's nest of Sargodha.

16. The Battle of Amritsar Radar

Sqn Ldr Muniruddin Ahmed, known as 'Munir' throughout the PAF, was one of its most popular officers. At the age of 36 in 1965, overweight, grey-haired and completely happy-go-lucky, he was regarded as an 'elderly gent' by the youthful PAF pilots, but he set a pace which even the most energetic found difficult to rival. As Wing Operations Officer at Sargodha, he was not required to fly in combat and in any case his many administrative duties would have grounded a less volatile man. But after his family, his great passion was flying, and he managed to inveigle his way into combat missions at least once, and sometimes twice, per day.

There are many stories told in the PAF about 'Munir', whose legendary stutter that officially barred him from flying operationally became progressively more pronounced as he got excited. Early on in the war when his section of F 86s had a rare encounter with IAF MiG-21s over the Chhamb area, 'Munir' got so close to one of these Mach 2 fighters that he could pick out its big wing fences and belly detail as it turned away. He called up on the RT about the MiG, and stammered convulsively, 'B-B-B-By G-G-G-God, he nearly had me.' Sqn Ldr 'Munir' was not terribly good at passing promotion examinations, but he had the heart of a lion and the tenacity of a leech. He flew on air defence, fighter sweeps and close support missions, but conceived a particular fixation against the IAF master radar station just across the border from Lahore at Amritsar. So intense were his feelings about trying to knock out this major installation, that it became better known at Sargodha as 'Munir's Radar'.

'Target Alfa', as the Amritsar installation was officially known to the PAF, had of course been a primary objective from the very beginning, since it controlled both the IAF fighters and bombers, as well as providing early warning for the Indian air defence system. And by watching the movement in the air of PAF fighters, it often enabled IAF Gnats and Hunters to evade combat,

because of their superior speed performance over the F-86. The IAF was naturally only too conscious of the vulnerability of Amritsar radar to Pakistani attack, and the area was very heavily defended with anti-aircraft guns deployed over a radius of a couple of miles. Around Amritsar, too, were the main IAF fighter airfields of Pathankot, Adampur and Halwara, but an even more effective defence was provided by the mobility of the Indian Type 30 radar, which prevented its precise location from being pinpointed by the PAF as an essential preliminary to its attacks.

Unlike the PAF radar installations, the IAF was not then restricted to a fixed site, and its large lattice and dish aerials could be more easily concealed than the massive domes of the FPS-20s. Many of the 48 sorties, in fact, flown between 1-23 September by the two RB-57Bs and the RB-57F of No 24 Squadron from Peshawar were concerned with pinpointing the position of Amritsar radar, although major efforts were also devoted by their specialised crews to monitoring enemy RT conversations. ELINT (Electronic Intelligence) missions to locate the enemy radars, which also included installations at Jammu and Ferozpur, were mostly flown 70-80 miles back from the international border. For greater accuracy, however, the RB-57s occasionally had to fly directly over their targets at 6,000ft above ground, level, well within reach of the Indian light flak.

After the first abortive missions against Amritsar on 6 September, recounted earlier, in which one ELINT RB-57B had its radar antenna drive sheared close to the target, and the second had one engine knocked out by Indian AA fire, the next move came on 7 September when attempts were made to locate 'Alfa' radar by photographic reconnaissance. Lockheed RT-33s of No 20 Squadron were initially used for this task, operating unescorted at low level, and their results were sufficiently accurate for the site of 'Fishoil' — the call-sign of Amritsar radar — to be pinpointed.

Right: Sqn Ldr Muniruddin Ahmed, known as 'Munir' throughout the PAF, in which he was one of its most popular officers. He was killed in action while attacking Amritsar radar when his F-86F was shot down by ground fire. He received the posthumous award of the Sitara-e-Jurat.

Below: Survivors of the section of four F-86Fs which attacked Amritsar radar on 11 September seen after their return. From left to right, they comprise Flt Lt Cecil Choudhry, Wg Cdr Anwar Shamim (now Air Marshal and C-in-C of the PAF) and Flt Lt Imtiaz Bhatti. Note the smoke-blackened gun panel of the Sabre.



First attack as a result of this intelligence came on 9 September, when after a briefing attended by the C-in-C, four F-86s from Sargodha hedge-hopped for 15 minutes across the border to Amritsar, in poor visibility to drop Napalm jellied petroleum bombs on the radar site. Despite the adverse weather conditions, the four Sabres came across part of the Amritsar complex after setting course from their Initial Point, and the accuracy of their navigation was confirmed by the heavy AA fire encountered in the target area. Leading the mission was Flt Lt Bhatti, who delivered his Napalm close to the site, although slightly to one side.

His No 2, the ebullient Sqn Ldr 'Munir', pulled up into a text-book attack pattern over the site, but then lost visual contact with the target because of the thick haze. Further attempts to continue the attack were then abandoned following warnings from Sakesar of large numbers of IAF fighters racing towards the scene from the nearby airfields. After exiting at low level, the PAF Sabres dropped their remaining Napalm loads harmlessly in Indian fields before returning to base.

On the following day, 10 September the PAF followed up with a further two missions against Amritsar radar by a total of 12 F-86s, from Sargodha escorted by two F-104s, as top cover. For these attacks, first by four F-86s escorted by two F-104s, followed by four F-86s, with four more as top cover, primary armament comprised 2.75in rockets, but it was soon found that the dust, smoke and debris from delivery of the first aircraft's weapons restricted visibility to such an extent that it was impossible for subsequent pilots to achieve an accurate aim. Slight damage was caused to some parts of the installation but unfortunately for the PAF, 'Fishoil' was soon back on the air.

At least the whereabouts of site 'Alfa' was now known, however, and the air superiority force of Sabres at Sargodha were detailed for yet another strike against Amritsar on 11 September. Having tried and rejected Napalm and rockets, the Sabres this time were to use only their 0.5in machine-guns against the radar installation, for the optimum accuracy and adequate striking power. The use of bombs at this stage was vetoed by the C-in-C, since the radar site was very close to the town of Amritsar, with the possibility of civilian damage and casualties. Cecil Choudhry was one of several PAF pilots who were convinced that dive-bombing by Sabres was the answer to Amritsar Radar. He was prepared to guarantee that four Sabres could deliver eight 1,000lb bombs into an area 200yd square, but the C-in-C was not prepared to risk even one bomb landing in the civilian cantonment.

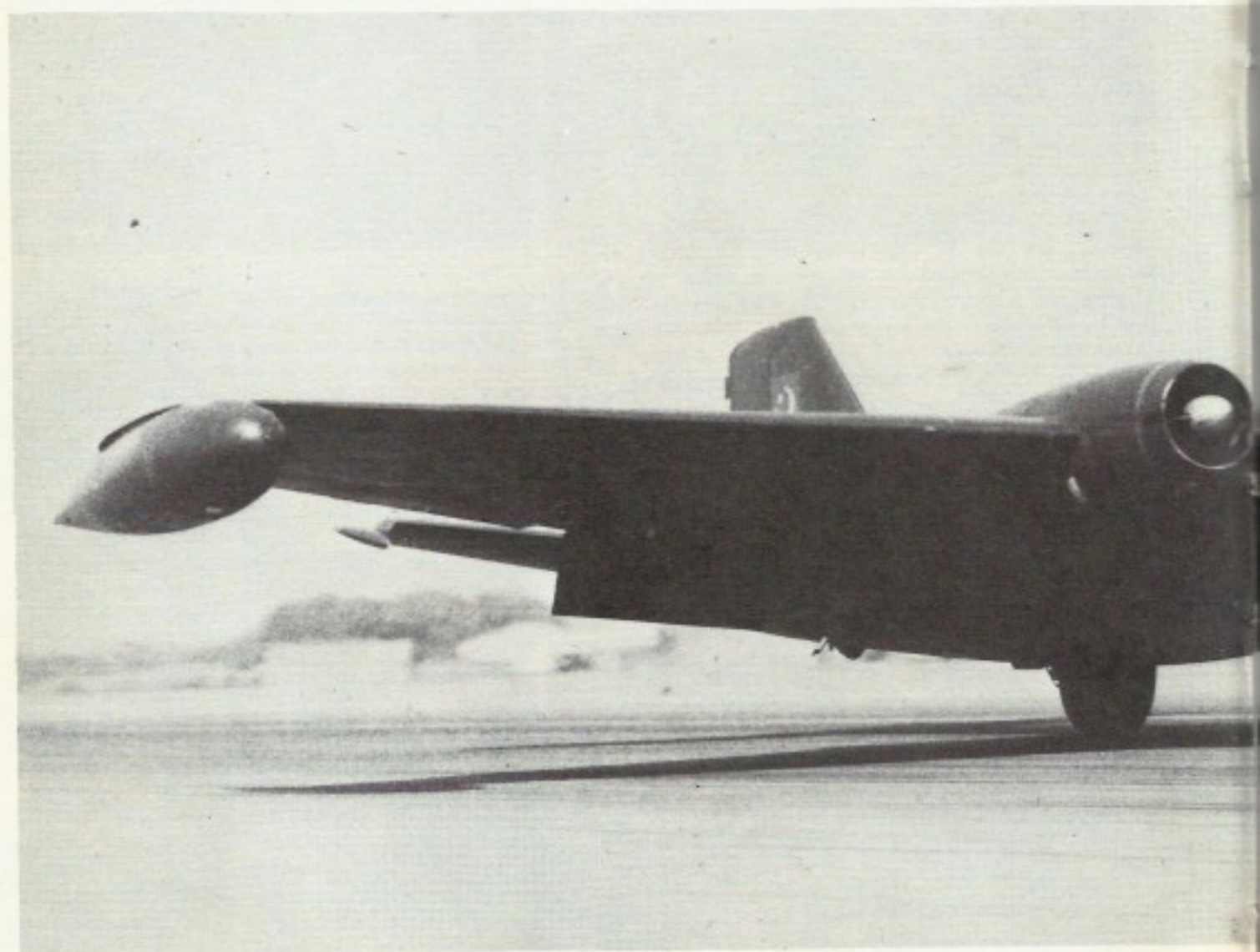
For the attack of 11 September, four Sabres plus a top cover of two F-104s, were led by the wing leader at Sargodha. Wg Cdr (now Air Marshal and C-in-C of the PAF) Anwar Shamim, with Flt Lt Bhatti as his No 3, and Flt Lt Cecil Choudhry as his No 4. Enquiries as to the whereabouts of the wing leader's No 2 were answered by Sqn Ldr 'Munir', who arrived at the briefing in a freshly starched uniform, and announced that Flt Lt Seraj had been kind enough to stand down so that the Op Officer could come along in his place. Resignedly, Wg Cdr Shamim completed the briefing, and the four Sabres set off at low level at 08.00hrs on the half-hour flight to Amritsar.



Above: Sqn Ldr Mohammed Iqbal, the PAF's leading ECM specialist, was shot down and killed, together with his navigator by Pak Army AA fire in error during a practice radar homing mission in an RB-57B Canberra of No 24 Squadron prior to a planned bomber strike against the Amritsar early-warning and control site.

Despite poor visibility from the usual dust haze, Flt Lt Bhatti, who was responsible for the navigation of this mission, brought the four Sabres out at low level precisely on track to Amritsar. Some help in identifying the target was in fact received from the Indian AA fire, which began even before the Sabres started their pull-up to attack. As planned, Flt Lts Bhatti and Choudhry began climbing to about 7,000ft as top cover and to draw some of the AA fire, while the two F-104s orbited even higher to prevent interference from IAF fighters.

As the first pair of Sabres started their climb, Flt Lt Bhatti called on the RT, 'Target at 3 o'clock,' and Wg Cdr Shamim replied, 'Lead and No 2 pulling up.' By this time, the target area was a veritable inferno of light and medium flak and within a few seconds there came another RT call, 'Two is hit'. Flt Lt Bhatti, when later describing the mission, reported:



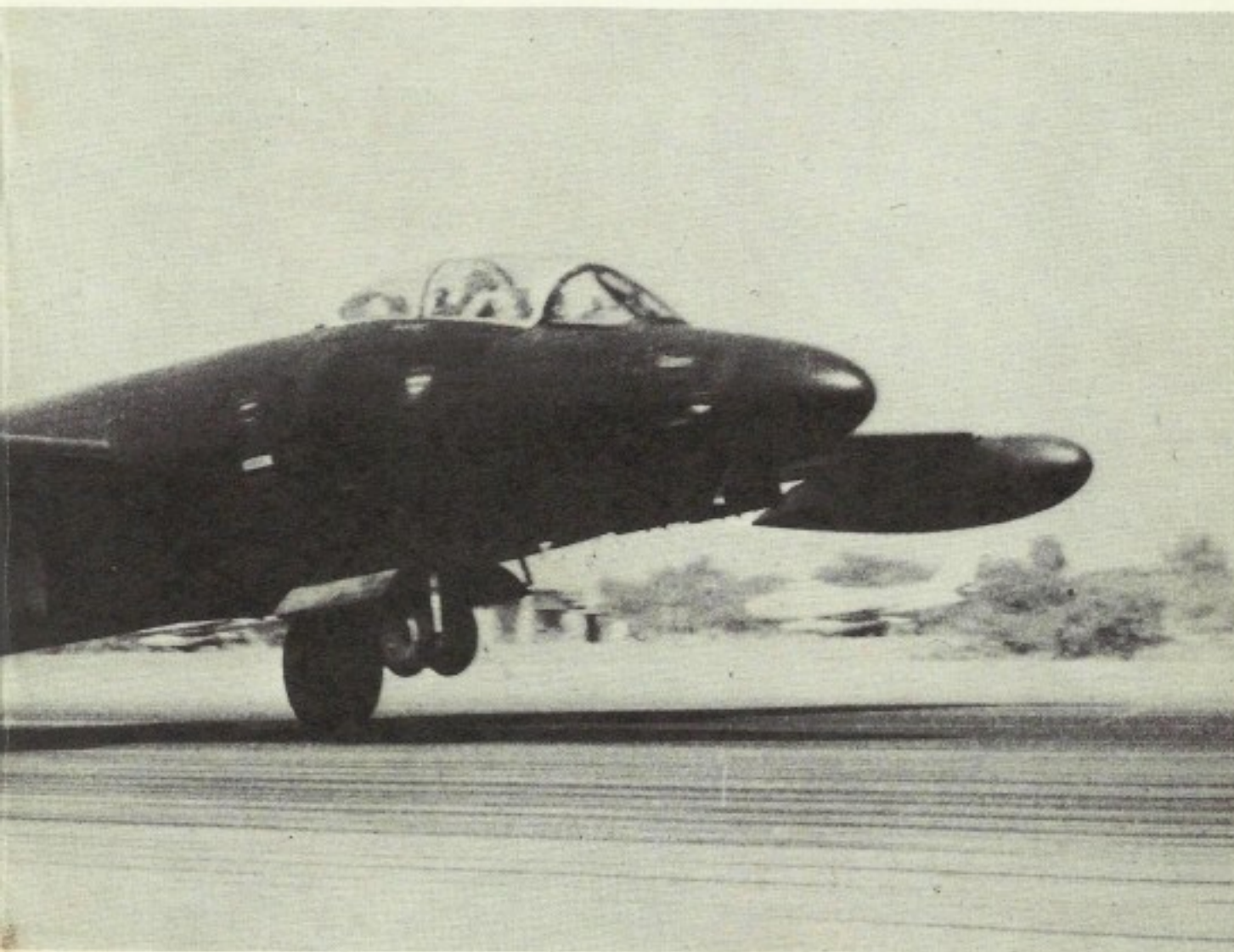
'No 2, of course, was 'Munir' but his voice on the RT was calm and unhurried. As I looked down, however, I saw three balls of flame tumbling through the air where his Sabre had already exploded. He must have taken a direct hit from a heavy AA shell and never had a chance to eject. The flaming wreckage fell on the eastern outskirts of Amritsar town, and 'Munir' was reported that evening by the Indians to have been found dead among the debris.'

Left: A group of PAF Sabre pilots from No 32 Strike Wing at Sargodha are briefed for a ground attack mission against India in September, 1965.

Below: Four Martin B-57 Canberras of the PAF bomber wing, one of which is seen here just after touch-down, finally made a successful dive-bombing attack against Amritsar radar on 12 September during daylight. They returned to base without loss despite very heavy and accurate Indian AA fire.

Undeterred by the loss of 'Munir' and the continuing storm of flak, Wg Cdr Shamim completed his strafing attack, firing long bursts into the radar airdials with his 0.5in machine-guns. Bhatti called up and said, 'How about me having a go,' and the remaining two Sabres then came in to expend most of their ammunition on the radar installation before exiting, still at low level. 'Munir's' loss on his ninth combat mission of the war was deeply felt at Sargodha and throughout the PAF, among whom he is remembered as a 'professional to the end', but his courage and inspiration were recognised by the posthumous award of the Sitara-e-Jurat. For the first time, Amritsar radar was put out of action for several hours, and it remained intermittent for some time afterwards.

This strike was still assessed as indecisive, however, by PAF Air HQ, where it was concluded that bombing was the only effective means of doing serious and more permanent damage to the enemy radar sites, despite the element of risk to adjacent civilian property in the Amritsar cantonment. For optimum accuracy, it was thought desirable for one of the specially-equipped RB-57s to lead the bomber formation while homing on to the enemy radar. On the evening of 11 September, Sqn Ldr M. Iqbal — the PAF's leading ELINT specialist — flew a practice homing mission in one of the RB-57Bs of



No 24 Squadron, using the old mobile radar of No 230 Squadron at Rahwali as a target. During his low-level approach, he was mistaken for an enemy Canberra and was promptly shot down by alert PakArmy personnel manning quadruple 0.5in machine-guns at Rahwali. The deaths of Sqn Ldr Iqbal and his navigator, Flt Lt Saifullah Lodhi, and the loss of one of the three specially equipped RB-57s operated by the PAF was one of the pointless tragedies of war which might have been avoided if the Army gunners had been informed of the planned practice run.

The bombing attack on Amritsar radar planned for 12 September, therefore, had to be undertaken without ELINT assistance, but a daylight raid could achieve the required accuracy. With an escort of four F-86s, led by Flt Lt Bhatti, and two F-104s from Sargodha, flying top cover, the vulnerability of the four B-57s involved in the strike to large-scale enemy fighter interception was considered acceptable, especially since the target was only just inside Indian territory. As an additional precaution, the TOT was fixed at dusk, with a rendezvous time of 17.15hrs for the 10 aircraft involved over Bhagtanwala.

On this occasion, the briefing for the Amritsar strike was conducted by the C-in-C, AM Nur Khan himself, who emphasised the importance of absolute accuracy in bomb delivery, both to ensure the destruction of the target and avoid damage to the neighbouring cantonment. On this occasion, the attack went completely to plan. After a low-level approach from Pakistan, the B-57 formation, led by Wg Cdr Latif, pulled up to their briefed attack height of around 7,000ft, above the reach of light flak, to dive-bomb the target. Each B-57 delivered its full load of 7,000lb of bombs in the target area, and all the PAF aircraft returned safely, despite heavy AA fire. Once again, the de-briefing was conducted by the C-in-C, who congratulated the B-57 crews on the effectiveness of their attack.

This time, 'Fishoil' really did go off the air, as the result of the heavy damage caused by the PAF's 1,000lb bombs, and photographic reconnaissance of the target the next day (13 September) revealed that the site had been vacated. For the reconnaissance flight, one of No 9 Squadron's two unarmed two-seat F-104B Starfighter trainers was pressed into service, using a hand-held camera in the rear cockpit for oblique photography. Piloting the F-104B was Flt Lt Aftab Alam, with Sqn Ldr Middlecote as camera operator. Flying at high-speed (around 600 knots) at about 3,000ft, the F-104B evaded both AA fire and IAF interception, the only problem being that g-forces resulting from the turn over the target made the heavy camera (which normally formed part of a fixed aircraft installation) almost impossible to lift. But the F-104B also managed to get some photographs of Adampur airfield on the same sortie, before returning safely to Sargodha.

The PAF strikes had therefore achieved the dual effect of damaging the radar installation at Amritsar, and necessitating its removal to another site. This was in the same general vicinity, and although 'Fishoil's' mobility ensured that it was soon back in business, it required accurate calibration before its reports could attain the value they previously held. In wartime, such calibration is

not easily achieved, and there is reason to believe that after 13 September, errors in interpretation of the returns recorded by Amritsar radar sometimes caused a certain amount of confusion among the IAF pilots.

These appear to have lost some of their confidence in 'Fishoil' control after 12 September, but since Amritsar radar was back in business, the PAF was bound to resume its battle against this vital target. Over the next few days, several missions were flown by the two remaining ELINT B-57s in the general area of Amritsar in an attempt to pinpoint the new radar site, and one or two probable positions were suggested. All of these were surveyed by photo-reconnaissance — mostly by T-33s — but the IAF had done a good job of hiding the aerials, which remained undetected.

In fact the B-57 strike of 12 September effectively marked the end of the Battle of Amritsar radar, so far as the PAF was concerned, since no other attacks against 'Fishoil' materialised. On 18 or 19 September, the B-57 wing leader was flown in the rear seat of one of the F-104Bs to Amritsar in an attempt to pinpoint visually the radar site, in preparation for a subsequent bomber strike. For various reasons, this did not take place, but the Battle of Amritsar at least taught the PAF the value of accuracy in weapons delivery, to which it has subsequently paid great attention.

Two other GCI and early warning stations operated by the IAF at Jammu and Ferozpur were prominent on the list of targets for the PAF, but had hitherto escaped attack. Ferozpur was given to PakArmy artillery as a target on the night of 14/15 September, but without apparent effect. Both radar sites were then scheduled for attack by two sections each of four Sabres from Peshawar and Sargodha on 19 September, but the strike against Ferozpur with rockets and guns proved abortive when the GCI unit was found to have been moved.

Jammu radar was attacked by four F-86s from the redoubtable 'Nosey' Haider's No 19 Squadron from Peshawar, in an unusual dive-bombing role. The squadron had previously practised dive attacks carrying two 1,000lb bombs beneath the wings, and although there were reservations concerning flight safety with the F-86 in this role, a high degree of accuracy could be obtained in weapons delivery. This, of course, was essential for a pinpoint target of this nature, which was situated only two or three miles from the operational IAF airfield at Jammu, and not far from the MiG-21 base of Pathankot.

Because of the distances involved, No 19 Squadron's aircraft operated with drop tanks in addition to their bombs, and as the Sabre pilots pulled up over their target, they heard over the RT orders for IAF fighters to scramble from Pathankot. Dive-bombing with the Sabre involved a half-rolling entry, throttled right back to avoid gaining excess speed as the aircraft plunged down and a theoretical pull-out, according to the C-in-C's instructions, above the reach of light AA fire. This target height restriction was interpreted somewhat liberally by the PAF pilots, most of whom tended to press home their attacks at virtually point-blank ranges. On this occasion, these tactics certainly paid off, and at least two bombs landed within the target periphery. Jammu radar promptly went off the air, and played little further part in the IAF operations.

17. Maintaining Air Superiority

After the hectic air combats of the first two days of the Indo-Pak war, accompanied by extensive IAF losses and a corresponding slump in Indian morale, there appeared little doubt that the PAF had achieved complete air supremacy over the battle areas, from Chhamb in Kashmir, down through the Sialkot and Lahore sectors to Sind and Rajputana in the south. Further into Indian air space, the situation might have been different, but in the region of the ground fighting the main PAF problem was to persuade the IAF to accept combat. In No 9 Squadron, in particular, IAF respect for the Starfighter soon reached the point where many of the F-104 pilots wanted to transfer back to F-86s in the hope that the Indian pilots might then stay and give them a fight.

Two of the specially-equipped RB-57s of No 24 Squadron were fitted with VHF monitoring equipment to intercept IAF RT conversations, which tended to emphasise the general reluctance felt by Indian pilots to engage the PAF. Excuses put out by IAF personnel to avoid combat and recorded by the PAF monitoring equipment included unserviceability of aircraft or equipment, radio problems or failure, fuel shortage, poor radar contact or bad controlling. Some of these reasons were undoubtedly genuine, but their incidence was notably higher than experienced by the PAF, with a corresponding indication of respective morale.

The PAF lost one of its VHF monitoring aircraft, when the ELINT RB-57B flown by Sqn Ldr Iqbal was shot down in error by Pak Army flak on 11 September, but the long-winged RB-57F, or 'Droopy' was similarly equipped. Most of the 48 Electronic Intelligence sorties flown by No 24 Squadron during the 22-day war were concerned with monitoring enemy transmissions which were used, among other things, to warn PAF aircraft about the movement of IAF fighters. Attempts to pass misleading orders on the Indian VHF frequencies did not achieve any major success, but useful information was sometimes obtained from enemy bomber transmissions

concerning the aircraft position to relay to PAF interceptors when their targets were below radar cover.

For its main counter-air role after 6 September, the PAF relied largely on its B-57 force to continue attacking enemy airfields at night, supplemented by occasional daylight strikes by the F-86s against the less heavily-defended IAF bases. So far as air superiority was concerned, it is the general opinion of the PAF air staff that the IAF avoided combat from the very beginning because of the conviction of the Indian pilots that their aircraft were inferior to the weapons systems represented by the Sabre/Sidewinder and F-104/Sidewinder combination. This theory is of particular interest in view of an official postwar IAF account of the Indo-Pak air operations which derided the value of the Sidewinder.

'The reputedly deadly Sidewinder AAMs, on which the PAF depended so heavily for air combat,' said the Indian report, 'proved ineffective because of the low altitudes at which most of the air battles were fought. More often than not, the enemy fighters had to jettison these missiles when engaged by the Gnats.' In fact, of course, less than 25% of the PAF's 100 or so Sabres were equipped to carry the Sidewinder. But, even without the destruction of nine enemy aircraft for a total of 33 missiles fired throughout hostilities, the Sidewinder was clearly a major factor in the attainment of PAF air superiority. And the Sidewinder proved successful in operation down to altitudes of only 50ft or so above the ground, provided it was not actually pointing below the horizontal position when released.

While maintaining this superiority, the PAF had to guard against such eventualities as a mass strike against its forward base at Sargodha, where four F-86s and six F-104s were kept at a constant state of readiness for emergency air defence throughout the period of hostilities. Air defence, in fact, remained a long term major commitment for the PAF fighter force, on which the F-86s alone flew 942 sorties, but the interpretation of this





One of the first occasions in history when opposing Mach 2 fighters met in combat was on 11 September 1965 near Ferozepur. An F-104A of No 9 Squadron PAF encountered at least four of the very first MiG-21s to enter service with the IAF. The Starfighter was able to out-run the MiGs by accelerating to supersonic speed at low altitude, but nearly ran out of fuel in the process.

role extended to prolonged Combat Air Patrols (CAPs) and even fighter sweeps. The original plan to maintain CAPs over vulnerable points was followed throughout, and sections of F-86s were in continuous operation over the Sialkot, Lahore and Kasur areas to deter the enemy from attacking Pak Army units and to intercept IAF close support aircraft.

Attempts were also made, particularly by the F-104s, to provoke the IAF into action by flying across the border into India, and Sqn Ldr Alam was particularly fond of what he liked to call 'MiG-baiting' flights in his well-blooded Sabre. But the IAF invariably refused the challenge, although PAF fighters sometimes flew as far as Amritsar and beyond. Single F-104s patrolled almost daily for 30 minutes at a time between Halwara and Adampur at dawn and dusk without any Indian reaction, and at night the Starfighters penetrated as much as 100 miles into enemy territory to try and intercept the IAF Canberras, with no fear of opposition.

Following loss of the F-104 on 7 September — at first thought to have been struck by debris of its Mystère victim — the PAF air staff considered that continued reliance on the Starfighter's speed performance for its own defence could result in the likelihood of frequent damage in similar gun attacks. Starfighter CAPs were therefore subsequently conducted in pairs during daylight, although the IAF steered well clear of the F-104s for the rest of the war. As a matter of interest, in a total of some 200 air defence sorties in daylight, the F-104s of No 9 Squadron made visual contact with enemy aircraft only on eight occasions during hostilities, and shot down two in the process. A further two victories were claimed by Starfighters at night.

Probably the first occasion in history when opposing Mach 2 fighters met in combat was on 11 September 1965 when a single Starfighter flown by Flt Lt Hakim, scrambled from Sargodha to patrol Lahore at 15,000ft. Main object of the flight was to induce the IAF to come up and fight, and the F-104A was flying 'clean' — without its usual 200-gallon drop tanks — except for its usual wing-tip Sidewinders. From Lahore, Flt Lt Hakim headed south towards Ferozepur, where he orbited for seven to eight minutes before climbing to 25,000ft.

Sakesar then reported that two sections of IAF fighters were airborne from Halwara and requested another orbit from the F-104, although by this time, Flt Lt Hakim was beginning to become concerned over his fuel margin. Soon his fuel state necessitated an immediate return to base, but at that point Sakesar informed him that the IAF fighters were reporting visual contact with the Starfighter. Flt Lt Hakim then spotted a single Gnat several thousand feet below him, but placed for a possible missile attack, and he also saw another Gnat almost immediately below.

As he placed his sight on the first Gnat in preparation for a Sidewinder attack, and heard the missile tone indicating target acquisition, Flt Lt Hakim was about to press the trigger when he realised that he was pulling more than 2g in a turn, which is outside the limits for release of the GAR-8. He therefore eased the turn and was continuing a gentle descent when Sakesar warned him of aircraft diving towards him from 26,000ft. Flt Lt Hakim looked up and made visual contact with two IAF fighters above him and to the right, and quickly realised that they were MiG-21s.

He therefore forgot about the Gnats and broke into these Mach 2 interceptors, only to realise that he was heading further into India. In view of his perilous fuel state, he broke immediately in the opposite direction, went into full afterburner power and saw the MiG leader pull up and rock his wings to look for the F-104. While diving away, however, the Starfighter pilot was suddenly confronted with two more MiG-21s approaching him head-on, and he was forced to break into them in turn. By diving with full afterburner power to tree-top height, Flt Lt Hakim was able to accelerate to supersonic speed — about Mach 1.1 — and although Sakesar reported that



Above: Gnat fighters of the IAF were encountered on several occasions by F-86s and F-104s of the PAF whose pilots did not consider these lightweight aircraft a particular challenge, despite their small size and good manoeuvrability. Although the Gnat became known as the 'Sabre-slayer' in India, this appeared to result largely from IAF propaganda.

Right: GAR-8 Sidewinder air-to-air missiles — used by both Starfighters and Sabres of the PAF on their loading trolley at Sargodha. Note the protective covers over the optical infra-red sensor heads. As the most widely-used AAM of the Western World, and also copied by the Soviet Union, the Sidewinder is still in production in developed form some 25 years after its introduction in 1953. Originally developed by the US Naval Ordnance Test Station, the early Sidewinders had a 10lb HE warhead and a maximum range of about two miles for a launch weight of 159lb.



the MiGs were continuing their pursuit, the PAF pilot knew that their performance remained subsonic at low altitude.

His predicament was unenviable, however, even though he throttled back to maximum dry thrust after about a minute. Sixty seconds of full afterburner at low altitude consumes fuel at a prodigious rate — somewhere around 5,000 gallons per hour — and Flt Lt Hakim was deep in enemy territory about 100 miles from base with the gauges indicating only 500lb of JP-4 remaining. Normal F-104 operations require a minimum fuel margin for

landing of about 1,200lb although additional reserves are usually specified in case a diversion becomes necessary.

It was obvious that the F-104 would never make it back to Sargodha, but even to reach Pakistani territory Flt Lt Hakim decided that it was necessary to regain height for the optimum fuel consumption. After zooming to 25,000ft and throttling back to economical cruise rpm, the PAF pilot asked Sakesar radar for a course to steer and the distance to reach the disused landing strip at Risalawala. Within sight of the town of that name, he began his descent, and when passing through about 14,000ft some 10 miles out, the fuel booster pump warning light came on, indicating that not enough JP-4 was left in the tanks to maintain the required pressure.

From then on, a power-off approach was necessary, with the throttle pulled back to idle, but even with the speed reduced to a minimum of 240-250 knots, the F-104 has the gliding angle of a streamlined brick. There was no question of a second chance at the landing, but at the key position, Flt Lt Hakim lowered half-flap and the undercarriage and made a beautifully-judged touch-down at Risalawala. He coasted to a stop with the aid of tail parachute and wheel brakes, and his engine flamed-out through lack of fuel as he turned off the strip. His brilliant airmanship, however, had saved the PAF one of its most valuable and literally irreplaceable aircraft.

Under more favourable circumstances the F-104 would have attempted to engage the MiGs, although the PAF had decided that it would have been unwise to have attempted to dogfight these high-speed Russian aircraft. With their delta wings, they could probably out-turn the highly-loaded Starfighter, but the F-104 had the advantage in speed. No other contact with the MiG-21 was made by the F-104s, which found it virtually impossible to achieve any further engagement with the IAF.

Even low-level, daylight reconnaissance missions over the main IAF fighter airfields failed to produce any Indian reaction. One pilot from No 9 Squadron, Flt Lt Aftab Alam Khan, made as many as three visits during daylight to photograph Halwara, and found that the speed of the Starfighter gave the Indians no time to react at all, even after several passes over the airfield. The F-104s were also used to escort the slow Lockheed RT-33 reconnaissance fighters of No 20 Squadron on photographic missions deep into Indian territory, the presence of the Starfighters virtually guaranteeing that no air opposition would be encountered. A couple of Hunters were seen in the distance on one RT-33 escort mission to Halwara, but they stayed well clear of the PAF aircraft, which continued their task unmolested.

On another occasion, two F-104s were scrambled from Sargodha on a CAP over Lahore, where they were vectored by Sakesar towards a couple of unidentified aircraft at about 25,000ft. Visual contact was made with the bogies by the Starfighter leader at a range of about seven miles, and they were quickly identified as IAF Hunters. The PAF leader then lost contact, but by this time his No 2, Flt Lt Arif Manzoor, had picked up the Hunters on his radar and took over the lead. As he began overtaking the Hunters at about Mach 0.85, both IAF aircraft broke left, probably warned of the F-104's presence by Amritsar Radar.

One Hunter rolled over on to its back and pulled through in a split-S manoeuvre, while the other turned so tightly during its break that Flt Lt Manzoor saw it stall and pitch up no fewer than three times. By then, the F-104s had been separated, but Flt Lt Manzoor stayed with the second Hunter, hoping to release a Sidewinder as soon as it became possible to relax the amount of g being pulled in the turn. In the meantime, he also endeavoured to close the range of the Hunter so that he could use his Vulcan cannon. At about 5,000ft distance, he laid his computing gunsight ahead of the Hunter, but he found the target sliding up his windscreen as the IAF aircraft tightened its turn still further.

As he racked the Starfighter round as tightly as possible, Flt Lt Manzoor opened up power to keep his speed above about Mach 0.9. He was therefore unworried about being intercepted in turn despite warnings from his No 1 of other enemy aircraft in the vicinity.

In all, the F-104 made four attempts to nail his determined adversary, but each time the Hunter was able to out-turn the Starfighter, although it stalled out twice more in the process. Eventually, Flt Lt Manzoor realised that the situation was a stalemate, and as his fuel was down to about 2,100lb, and he was within sight of Adampur, he disengaged by zooming up in after burner power to 36,000ft. This degree of flying skill was not often demonstrated by the IAF, although it obviously had a large number of experienced fighter and bomber pilots to draw upon, as several other engagements showed. These, however, all involved the PAF F-86s, which the IAF was less reluctant to engage than the Starfighter, since its Gnats and Hunters were both considerably faster than the Sabre.

Even so, after the first couple of hectic days of the war, there were only five occasions on which the marauding F-86s of the PAF could incite the Indian Air Force into decisive air combat. This was partly due to the war situation, which by 15 September had achieved something of a stalemate. Although PakArmy had proved itself, with PAF assistance, quite capable of containing the much larger Indian forces, it did not have the resources to launch a major offensive to push the enemy completely out of all Pakistani territory, and was also running dangerously short of some ammunition and supplies. As the ground positions began to stabilise, the PAF C-in-C was faced with the problem of assessing how long this stalemate was likely to continue. Inevitably, prudence dictated a scaling-down of the air effort to conserve the PAF as a force in being for the longest possible time.

Nevertheless, all types of operations were continued by the PAF to maintain its air superiority, which was demonstrated on every encounter with the IAF. The first of the five F-86 engagements during the latter part of the war came on 10 September, which was one of the few occasions when a PAF formation found itself outnumbering the enemy. Four F-86s from Sargodha were on CAP over the Kasur area, about 10 miles inside Indian territory, led by the irrepressible Sqn Ldr 'Munir', with Flt Lt Imtiaz Bhatti as his No 2, Cecil Choudhry as No 3 and Flg Off Karim Bhatti as the No 4. The Sabres were being controlled from Sakesar by Flt Lt Farooq Hyder, who warned the formation of the proximity of

Right: As a flight commander in No 19 Squadron of the Strike Wing at Sargodha, Flt Lt Amamullah Khan specialised in close support missions, in the course of which he was credited with the destruction of no fewer than 40 Indian tanks. He was subsequently awarded the Sitara-e-Jurat.

enemy aircraft. Cecil Choudhry reported after the ensuing battle:

'These turned out to be two Gnats which were spotted very late due to their small size, and were already in a curve of pursuit when we made visual contact with them. Sqn Ldr 'Munir' did not at first identify them as Gnats and called "Hunters on the left" on the RT, while I told No 4 to punch tanks and break left. The Gnats then overshot and opened fire on the leader and No 2, Flt Lt Bhatti, who had had a tank hang-up. As I reversed my turn, I saw Sqn Ldr 'Munir' had positioned himself behind the first Gnat, which was firing at point-blank range at Flt Lt Bhatti, but at an excessive angle-off, and opened fire. The Gnat promptly spun down into the ground trailing thick white smoke.

'The second Gnat could have pulled out of the battle at that stage and would have been wise to have done so, but the IAF pilot turned back into the formation of four Sabres. Its pilot, in fact, soon got behind Sqn Ldr 'Munir', who was stuttering cheerfully over the RT that he was going to have a drink that night to celebrate. He had sworn off alcohol until he could claim an enemy aircraft shot down. Sqn Ldr 'Munir' was so busy telling everyone on the RT that he'd got the Gnat that none of us could break through his transmissions to warn him about the second enemy aircraft now sitting on his tail.

'We had to do something quickly, so I yanked my Sabre round in a vicious turn, pulling about 8g in the process. My No 2 (Flt Off Bhatti) did not have time to clear my tail, but he stayed with me as I took a quick pot-shot at the Gnat. I couldn't wait for my gunsight to settle down but a long burst at close range scored hits on the outer wing of the Gnat, which promptly broke away and did a half roll. It then accelerated away from the Sabres, and I took a few more shots at him, and when he was some distance away, I released a Sidewinder.

'When I last saw the Gnat, it was in a steep dive over Khem Karan. "According to PakArmy reports and my No 2, it went into the ground, but I wasn't sure myself and only claimed a "damaged". All-India Radio that night mentioned that two Gnats had engaged four Sabres, but claimed that all the PAF aircraft had been shot down. Actually, of course, we didn't lose one.'

Curiously enough, the next encounter, on 13 September, was almost an exact duplicate of the first of the air superiority battles. This time, the four Sabres on CAP at 20,000ft over the Amritsar-Beas area 30-40 miles inside India were flown by Flt Lts Yusuf Ali Khan and Bhatti, and Flt Offs Khaliq Khan and Karim Bhatti when two Gnats climbed up from Halwara to meet the PAF challenge. Later on, it was reported that the IAF aircraft had a top cover of MiG-21s too. Contact was established



almost simultaneously by both sides. As the Sabres punched their drops, Flt Lt Yusuf had a hang-up of one nearly full drop tank under the port wing, but this did not prevent him from continuing to engage one of the Gnats. The IAF pilot made the mistake of trying to fight the Sabre in the horizontal plane all the way down from about 25,000 to 3,000ft, instead of taking advantage of his superior performance in the vertical plane. Yusuf eventually got on to its tail by pulling no less than 8g and as its wing span filled his gunsight reticule, he gave it a two-second burst from his six 0.5in machine guns — about 240 heavy bullets in all. He saw strikes all over the Gnat, whose pilot was probably killed at this time. Another brief burst sent the Gnat diving vertically in flames towards the ground about 10 miles from the Beas river.

In the meantime, Flt Lt Bhatti had positioned himself behind the second Gnat, on which he opened fire without apparent result. The Gnat then went into a downward barrel-roll, which was a popular escape manoeuvre among Indian pilots. Flt Lt Bhatti succeeded in closing the range again, however, but just as he was about to fire, another Sabre passed between him and his target. The Gnat then made good its escape, but All-India Radio that day admitted the death of an IAF pilot, Flt Lt Gurn Bhapinder. He was said to have brought his damaged aircraft back to base and to have died after landing. His funeral was attended by the Indian President. Flt Lt Bhatti was credited with only one Gnat damaged, however.



On 14 September, four Sabres on CAP encountered four Gnats in the Lahore area, but the IAF aircraft refused combat and used their superior speed to dive away and escape. Two days later, however, when Sqn Ldr Alam, accompanied by Flg Off M. I. Shaukat as his No 2, was flying a MiG-baiting CAP only about 10 miles from the Indian airfields of Halwara and Adampur at about 20,000ft the IAF accepted the challenge with a couple of Hunters. After being directed by Sakesar on this deep penetration, Sqn Ldr Alam called up the GCI station to check on his position since his wing man was young and inexperienced, with a total of only about 300 hours flying, including 70-80 hours on the F-86.

Sakesar confirmed that Halwara was 10 miles to the left and instructed the Sabres to turn back through 180 degrees, at the same time warning the PAF pilots that IAF aircraft were climbing up for an interception. 'Do you want to fight?' asked Sakesar, knowing that Alam had an inexperienced wing man with him. Alam's answer was resigned: 'Now we are here, we've got to fight.'

A continuous commentary on the position of the IAF aircraft was passed by Sakesar to Sqn Ldr Alam, who finally made visual contact with two Hunters closing in from a range of about 4-5,000ft. Alam told his wing man to break into the Hunters and the battle was joined. He recalls:

'They were flying very fast; we were doing about Mach 0.8, but they must have been diving at around Mach 0.95 or more. They couldn't stay in our turn, so they zoomed up in a yo-yo manoeuvre. When I reversed back they

Above: In the course of only half-a-dozen or so attacks on IAF airfields from East Pakistan, No 14 Squadron, seen here being visited by the C-in-C after the end of hostilities, claimed the destruction of 24 Indian aircraft for the loss of two Sabres.

both pulled through from there, and we dived behind them until at about 13-14,000ft they separated in a vertical break. One of the Hunters went on down while the other pulled up to about 20,000ft with me still behind him. I'm sure this Hunter must have pulled between 7-8g, because I turned at about 6½g to keep with him and my aircraft flicked. I thought my drop tanks must have stayed on when I jettisoned them, but when I looked the wings were clean. So I had simply been pulling too much g.

'I fired my first burst at the Hunter when I was pulling about 6g, and although my gunsight was tracking him, I didn't hit him. As we were still climbing, however, the g began to bleed off, and the second time I fired at the Hunter I hit him. At the third burst, he became a ball of flame, so I turned back and looked for my wing man. He had not been able to stay with me, and had been engaged in combat by the other Hunter. They I suddenly lost all radio contact with him, although I could see him in the distance, and I saw the Hunter break away from him.

'The Hunter saw me, but although he was so close to his own base, he didn't want to accept combat. He turned



away from me and accelerated rapidly in a dive, although I followed as closely as possible behind him. I knew we were approaching close to the airfield of Halwara and suspected a trap, but he then did a loose sort of a roll to clear his tail, so he had obviously lost me. I had dived a good 5-6,000ft below him, at about Mach 0.94-0.95, and when I felt that he was slowing down, I fired a Sidewinder at him. There was something wrong with this missile, however, as it turned through about 90 degrees soon after its release.

I continued diving after him, however, and then released my second Sidewinder, which scored a hit on his right wing root. As it began to smoke, I saw that we were just crossing the Halwara Canal and as I was still well inside Indian territory and getting a bit short of fuel, I immediately half-rolled and dived down to tree-top level. When I hit the river Ravi, which marks the border between India and Pakistan, I climbed up to conserve fuel, feeling very miserable at having lost my No 2. I had called him unavailingly on the RT, and the GCI reported no contact.

Flg Off Shaukat, in fact, had ejected from his Sabre after being hit by the Hunter, and had landed near Taran Taran, where he was taken prisoner by the Indians. He was fired on from the ground while descending by parachute and hit by a .303in bullet and shotgun pellets. These were later removed from his body by an Indian surgeon, and he eventually joined other Pakistani prisoners at Agra.

Sqn Ldr Alam was credited with two Hunters destroyed east of Amritsar, which brought his total claims during the war to nine Hunters destroyed and two damaged in only three combats. About the only criticism Sqn Ldr Alam would allow of his beloved Sabre was its poor thrust/weight ratio, especially when carrying a couple of 200-gallon drop tanks:

'With the tanks on it just doesn't climb much above 20,000ft in the summer heat of Pakistan. The Hunter, on the other hand, is cleared for 7g, with or without tanks, and has 66% more power. But the Indians would seldom fight. I flew 36 air patrol missions and four or five ground attacks and made contact with the IAF only three times.'

Above: No 19 Squadron, led by Sqn Ldr 'Nosey' Haider, made a number of strafing attacks against the IAF airfield at Srinagar, in Kashmir, from their base at Peshawar, and claimed the destruction of a number of IAF aircraft, including this C-47 transport.

Although this was the last engagement that Sqn Ldr Alam was to experience with the IAF, two more contacts were made by other Sabres from Sargodha. On 18 September, four Sabres led by Flt Lt Syed Sa'ad Akhtar Hatmi, with Flt Lt Hamayun as his No 2, Flt Lt S. N. Jilani as No 3, and Flt Lt Cecil Choudhry as No 4, had an engagement with four Gnats which involved a classic battle of wits between the PAF and IAF ground controllers. At Sakesar, the controller was again Flt Lt Farooq Hyder, while the IAF aircraft were being directed through 'Fishoil' at Amritsar by a Flt Lt Mehta.

The four Sabres had been patrolling at about 11,000hrs for some 15 minutes inside Indian territory as usual between Taran Taran and Amritsar, at about 25,000ft when Sakesar warned them that four Gnats were coming up to intercept them. This intelligence had been gleaned from RT monitoring, as well as from radar observation. The Sabres were then flying due east into India, and the Gnats were reported to be heading south at about 29,000ft, about 12 miles abeam of the F-86s.

'Gnats closing to eight miles and turning on to your track,' commented the Sakesar controller, 'Turn right 180 degrees.' It seems that the IAF controller missed out on this turn, and as the F-86s punched tanks and opened up to high power, they were given another 180 degree turn to the right. 'Steady on 090 degrees, and your targets coming up at 12 o'clock, two miles,' from Sakesar. The interception had been beautifully judged by Flt Lt Farooq Hyder, and Cecil Choudhry was the first to call, 'Contact, four Gnats, 12 o'clock, level,' precisely on schedule.

It was apparent that the Gnats had still not located the F-86s, although the other Sabre pilots had still not seen the Indian aircraft. They then broke hard to the right, however, probably as a result of a warning from their own GCI, and Cecil Choudhry was presented with an excellent Sidewinder target as one Gnat appeared some

way ahead of him. Unfortunately, his was the only Sabre in the formation not carrying Sidewinders, and the Gnat was out of range of the F-86's machine-guns.

By that time, the eight aircraft were milling around in pairs in an enormous circle, each pair trying to get on the other's tail. As usual, they were rapidly losing height in the process, and were soon down to about 10,000ft. Some of the pilots also noticed AA fire coming up at them, and it became apparent that they were right over the top of the troop concentrations at Taran Taran.

One pair of Gnats began getting the edge over Flt Lt Hatmi until he broke right and they continued turning to the left. Cecil Choudhry then called up Flt Lt Hatmi to reverse his turn, which brought him back behind the Gnats, and within missile range. Hatmi fired a GAR-8, and one Gnat promptly flicked over on its back, streamed white smoke and went straight into the ground from about 2,000ft. The second Gnat broke off and dived away, and Cecil Choudhry then saw another of the IAF aircraft hit in the wing by Indian AA fire and crash. The two remaining Gnats promptly broke off the engagement, leaving the four victorious Sabres unscathed.

Another encounter on 18 September hardly qualifies as air combat, although it resulted in the shooting down of an unidentified IAF aircraft. Following the appearance of a 'bogey' or suspected enemy aircraft on the radar screen at Badin, in the south of West Pakistan, an F-86F was scrambled from Mauripur for an interception. This proved successful, and the intruder was shot down. That evening, however, All-India Radio announced that it was a transport aircraft carrying the Chief Minister of Gujrat State and his family, all of whom were killed.

The final fighter engagement of the 22-day war was on the afternoon of 20 September, when the usual four Sabres on CAP at Angels 20 between Kasur and Lahore drew an unusually brisk reaction from the IAF. On this occasion, the CAP was led by Sqn Ldr Sharbat Ali Changezi, with Flt Lt Azharul Haq Malik as his No 2, and Flt Lts S. N. A. Jilani and Amamullah Khan as Nos 3 and 4. Although the sky was clear at 20,000ft, virtually nothing could be seen below because of the usual summer dust haze.

'Four bogies climbing well inside enemy territory, heading north,' from Sakesar. Over Lahore, Flt Lt Amamullah Khan suddenly saw out of the corner of his eye, a couple of dark specks swimming up through the haze. 'Two bandits about 5,000ft below, 11 o'clock,' he warned. As seven drop tanks fluttered down (one of Sqn Ldr Changezi's had hung up) spraying out glittering globules of fuel, gun switches were selected to 'fire' and gunsights checked.

As the two enemy aircraft came close enough to be identified as Hunters, Flt Lts Jilani and Amamullah Khan peeled off to dive after them, but at that moment, Sqn Ldr Changezi spotted another pair of Hunters at 12 o'clock preparing to pounce on the No 3 and 4 Sabres. The PAF leader therefore dived on the second pair of Hunters, so that there was a veritable procession of Hunters, Sabres, Hunters and more Sabres in pairs tumbling through the sky.

First pilot to get his sight on a target was Sqn Ldr Changezi, a scion of the Hazara tribe of the Baluchistan Province, who managed to turn inside his pair of Hunters

despite the handicap of one underwing fuel tank. Flt Lt Malik called, 'Lead, your tail is clear,' and the Sqn Ldr fired a short burst as the Hunter loomed up into his gunsight. Strikes were evident on the fuselage of the enemy aircraft, and after a second burst, it began emitting smoke.

Flt Lt Malik called up and said, 'Lead, why isn't it bursting into flames?' Sqn Ldr Changezi replied, 'Wait,' and found that he was skidding slightly while following the desperate manoeuvres of the Hunter, because of the drop tank under one wing. He booted the rudder and fired a two-second burst while sweeping his gunsight pipper right across the Hunter from left to right. Once again, the pilot was probably killed, since the Hunter levelled out from its violent turns and went into a shallow dive without much acceleration.

At that moment, the Sqn Ldr saw four Gnats which had suddenly appeared from the left, so after one last burst at the Hunter, which dived into the ground, he broke left to confront the new enemy. He had lost contact with his No 2 who did not answer repeated RT calls, although he could hear the other two Sabre pilots busily engaged with the other Indian aircraft. Flt Lt Malik, in fact, had been attacked by the IAF Gnats while keeping his leader's tail clear, and his Sabre had suffered several strikes on the starboard wing and fuselage from 30mm high-explosive cannon shells. As he looked into his rear-view mirror, Flt Lt Malik saw two Gnats coming in again with blinding flashes from their cannon and, although he took violent evasive action, he received further hits.

The Sabre flicked over on the edge of a spin, but Flt Lt Malik managed to regain control despite dense fumes filling the cockpit. He lost his RT, and the aircraft would barely stay in the air, but he managed to dive out of the battle and head back into Pakistan. Just across the border, the Sabre finally became uncontrollable, and he was forced to eject quite close to Lahore. He parachuted down without major injury, and was back at Sargodha within a few hours.

In the meantime, Flt Lts Jilani and Amamullah Khan were continuing their battle with the three remaining Hunters, which had since been joined by the four Gnats. While Jilani was circling with a Hunter, Amamullah Khan stayed on his wing until attacked by a Gnat, when he was forced to break away. He was also fired at by the second Hunter which fortunately missed. Eventually, Flt Lt Jilani managed to out-turn his adversary, and as the Hunter began to fill his sight, he poured a stream of armour-piercing and incendiary bullets into it from close range.

As the Hunter plunged down in flames and out of control, the remaining IAF aircraft broke off the engagement and disappeared. Air Cdre Masroor Hussain, who was watching the progress of the fight at Sakesar, urged the PAF aircraft to chase the enemy, but it was rapidly getting dark and the IAF aircraft was nowhere to be seen. 'How did you get on?' asked the Air Cdre over the RT of the returning pilots.

'I got a Hunter,' replied Sqn Ldr Changezi.

'I got a Hunter, too,' added Flt Lt Jilani.

'I got saved,' said Flt Lt Amamullah Khan wryly.

Flt Lt Khan may have felt out of his normal element in the course of this combat, since he developed a positive

phobia for tank-busting during the war. As a flight commander in No 19 Squadron of the Strike Wing at Sargodha, he specialised in close support missions, in the course of which he was credited with no fewer than 40 Indian tanks destroyed.

Although there were no other air engagements before the cease-fire on 23 September, the PAF Sabres continued a limited counter-air effort against some of the more vulnerable Indian airfields from both West and East Pakistan. In the Eastern Province, where ground fighting was limited to minor clashes around Gitaldaha and Lalmunirhat from 9 September onwards, No 14 Squadron stayed on the alert and undertook several other operations following the initial strikes against Kalaikunda. On 10 September, after the IAF had bombed Chittagong, Kurmitola, Jessore, Rangpur and Sirajganj, No 14 Squadron retaliated with a strike against the military airfield of Baghdogra, just about due north of the East Pakistan capital of Dacca.

Four F-86s, each carrying four underwing drop tanks for the long, low-level flight to Baghdogra, set off in the early afternoon and arrived without being intercepted. Unfortunately, there was little activity to be seen on the airfield, which contained only one or two Ouragans in camouflaged pens, and a few assorted aircraft parked here and there. The Sabres gave Baghdogra a systematic working over, however, with their 0.5in machine-guns, each F-86 making two passes, and that flown by Flt Lt Farooq Khan, three. They destroyed a C-119 Packet transport, a Hunter parked on the Operational Readiness Platform, a helicopter, a fuel bowser, and a Vampire Trainer which was taxiing across the airfield. The pilot of the Vampire, Sqn Ldr M. J. Marston, was later announced as having been killed during this attack. On the way back, the Sabres strafed the military cantonment of Silligori, before climbing up for an uneventful return.

A few days later, on 14 September No 14 Squadron made two more airfield attacks, again with four F-86s each, against Barrackpore, just outside Calcutta, and Argatala, literally on the Indo-Pakistan border. The IAF radar site at Rampurhat was strafed the same day. The Barrackpore strike involved another long-range flight, with four external fuel tanks, although once again, little activity was evident at this IAF refurbishing base. Nevertheless, the four Sabres claimed one C-119, a Canberra and two Douglas C-47s shot up on the ground, together with the air traffic control building. Argatala proved to be devoid of any aircraft, although it was known to be used by C-119s at night. The attacking Sabres did not need any external fuel tanks, and expended their machine-gun ammunition on the airfield buildings and barracks causing, it is believed, many casualties among the IAF personnel.

Another strike from East Pakistan was scheduled against Hasimara airfield, north-east of Baghdogra, on 17 September, but proved abortive. Further air operations in East Pakistan were subsequently discontinued at the request of the local GOC PakArmy, to avoid the possibility of escalation, but in the course of only half-a-dozen or so attacks, No 14 Squadron claimed to have destroyed 24 IAF aircraft for the loss of two Sabres. The station commander at Kurmitola, had been given a free hand by Air HQ in the planning of the strikes against

IAF airfields, and with the help of the 'Tailchoppers' of No 14 Squadron, had made good use of it.

Meanwhile, in West Pakistan, airfield strikes during daylight were confined mainly to Srinagar, in the Vale of Kashmir, by the F-86 pilots of No 19 Squadron from Peshawar, led by Sqn Ldr 'Nosey' Haider. Although little or no activity had been evident from Srinagar, it remained a threat which the PAF could not ignore. No 19 Squadron renewed its acquaintance with Srinagar on 11 September, when two of its F-86s paid a quick visit to the airfield. The only aircraft seen was a United Nations Caribou transport, which was ignored, and attacks were confined to shooting up vehicles and staff cars.

In its campaign to make Srinagar untenable, the PAF attacked the airfield again on the afternoon of 13 September, this time with four B-57s making one of their initial daylight appearances, with an escort of four F-86s from Peshawar. The PAF aircraft encountered no enemy fighters, but strong flak from heavy guns was reported up to 15,000ft. As usual, little activity was evident on the airfield, but the runways were hit, and well-placed bombs from the B-57s destroyed a Douglas C-47 of the IAF as well as the UN Caribou which was unfortunately parked next to it.

This was the second daylight raid of the day against IAF airfields by the B-57s, which at 13.00hrs had attacked the air base at Jammu, again with an escort of four F-86s. No AA fire was encountered until the B-57s had delivered their first attack, which encouraged them to undertake some very accurate dive-bombing. Several transport aircraft and lightplanes could be seen burning on the ground as the PAF aircraft returned safely to base.

From Peshawar, the F-86s made their last airfield strike of the war on 14 September, when four Sabres led by Sqn Ldr Haider dive-bombed Srinagar on what could have been a highly marginal mission. This was made without escort, although each Sabre was weighed down with two 1,000lb bombs beneath the wings, in addition to two 200-gallon drop tanks. Although no escort was available, it was necessary to fly as high as possible all the way for reasons of terrain and range, but with their heavy load, the Sabres were unable to stagger above about 22,000ft.

Despite warnings from Sakesar that enemy fighters had been scrambled from Pathankot, the Sabres of No 19 Squadron set about their attack systematically, and of their eight bombs, six cratered the main runway at Srinagar. The Sabres exited at low level, and all returned safely to Peshawar. A few days later, two Sabres of No 19 Squadron patrolled at about 20,000ft between Amritsar and Adampur for about 20 minutes, two other F-86s of the CAI having aborted with technical problems, in the hope of enticing the IAF into action. Sakesar informed the Sabres that two IAF fighters had scrambled from Adampur, but as soon as the F-86s turned towards them, the enemy pilots promptly headed back into India. The Sabres could never get closer than about 12 miles to the IAF fighters, although curiously enough, when the F-86s dived to low level for their return flight, when down to minimum fuel margins, they were chased for some distance by six Hunters. The F-86 is at its best, however, at tree-top height and the PAF aircraft were able to evade their pursuers.

18. The PAF Night Bombing Campaign

In its prewar planning, the PAF had envisaged neutralising Indian air power by using its B-57s to crater the runways of IAF airfields during the night, thus immobilising the enemy fighter force. This was to be shot up at leisure by the PAF F 86s from dawn the next morning. Unfortunately, the PAF soon found that bombing an airfield at night is a fairly unrewarding business since the few hits achieved on the runways could be repaired quickly. And unless all the enemy airfields within range of the battle area could be put out of action simultaneously, an IAF interception force could always be put into the air.

Nevertheless, the PAF bomber force stayed committed to the night attack of Indian airfields as its principal task throughout the war. Of 195 missions undertaken by the B-57s during this period, of which 149 were considered effective, all but 20 close support operations were against Indian airfields or radar installations. For the B-57s, in fact, the five Indian airfields at Adampur, Pathankot, Jodhpur, Halwara and Jamnagar became a nightly milk run to meet their major counter-air commitment of disruptive bombing for the minimum cost in losses. And by arriving over their targets in a stream at intervals of 15-20 minutes, the B-57s certainly succeeded, disregarding the damage they inflicted, in achieving a major disruption of the overall IAF effort. The fact that this was so far below what an air force the size of India's should have been, and what was expected by the PAF, was attributed to the non-stop counter-air offensive by the B-57s.

Average bomb load of the B-57s for most missions was 7,000lb, although the full 8,000lb was carried on a few occasions. These mostly comprised four 1,000lb HE weapons of British World War II origin, carried internally, plus a similar number of American 750lb GP (General Purpose) bombs on underwing pylon attachments. Although the British bombs, dating back as far as 1942-43, were officially time-expired, they were no different

from those used by the RAF in their operations in Kenya and Malaya, and worked reasonably well in practice.

Better results, however, might have been achieved against concrete if fuses with a slight delay had been fitted. Even a half-second's delay would have enabled the bomb to penetrate the surface before exploding, ensuring a bigger hole than was achieved with the standard instantaneous fuses. These, however, were the only ones readily available. Even longer delays, in the opinion of the Bomber Wing ops officer, Wg Cdr Akhtar, would have kept the Indians occupied on their airfields for many hours after the PAF bombers had left.

Although runways remained one of the priority targets for the B-57s after 7 September, their crews were subsequently briefed to attack more specific airfield features, such as aircraft dispersal pens, POL (Petrol, Oil, Lubricants) storage, hangars, etc. But the PAF bomber campaign was directed strictly against military targets, and if the allocated objectives could not be found, the B-57 crews had firm orders to bring their bombs back.

This did not always appear to be the case so far as the IAF Canberras were concerned. Their crews tended to release their bombs indiscriminately in the overall target area, which resulted in many civilian casualties on a number of occasions, although there is little evidence that the IAF deliberately attacked non-military objectives. During its night missions, the IAF made extensive use of flares, which were not employed by the PAF. Instead, the B-57 crews relied on the half-moon of mid-September, which by timing their missions, they liked to get about 15 degrees above the horizon, to help pick out the white concrete runways of the IAF airfields. And if the target could not be seen in the darkness of ETA (Estimated Time of Arrival), the Bomber Wing leader, Wg Cdr (later Grp Capt) N. Latif, recalls that all you had to do was to trigger off a quick burst of 20mm cannon fire, and all the Indian AA guns would blaze away to indicate the airfield position.

After the first hectic night's operations, when the B-57 crews were extended to their limit by flying up to three sorties during the hours of darkness, no more than two missions per night were allowed. This was a fairly frequent commitment, however, and the B-57 crews still had a very long tour of duty each day. For the first week of operations when most missions against the northern Indian airfields originated from Peshawar, the centralised spares and servicing organisation for the B-57s at Mauripur necessitated the bomber crews returning to their Karachi base at the conclusion of each night's flying programme. The northern bases were also considered too vulnerable to IAF attacks during the day.

The bomber crews' day would thus start at about 16.00hrs with a flight of some 650 miles from Mauripur to Peshawar or Risalpur, where they might refuel before taking off for their first strike of the evening. Back to Peshawar for refuelling and rearming, and possibly another strike before returning to Mauripur by about 06.00hrs the following morning. Some bomber crews were known to fall asleep while rolling down the runway at Mauripur, and Wg Cdr Akhtar recalls taking off his helmet and striking himself on the face when returning on the long two-hour flight to base, to keep himself awake. He would also instruct his navigator to talk non-stop to him on the way back, to stop him from nodding off.

In the opening attacks by the B-57s against the four IAF airfields on the night of 6/7 September, described in Chapter 12 a total of 89 tons of bombs had been dropped in the course of 28 sorties, including 47 tons on Jamnagar. A reasonable standard of accuracy was thought to have been achieved with these attacks, although the first strike at Halwara was only partially successful. Only one of the four B-57s despatched managed to find the airfield, but better success was achieved by a later raid that night by three of the PAF bombers. Heavy AA fire was encountered on both occasions, but did not prove much of a deterrent.

It soon became evident from these initial attacks that even certain damage inflicted on several of the IAF airfields did not prevent them from resuming operations on the following day. After discussions at Air HQ, it was soon decided to widen the scope of the night airfield attacks to include hangars, buildings and other installations, in addition to runways, although this decision was not implemented until after the PAF strikes during the night of 7/8 September. These included two attacks against Halwara, during which only half the B-57 force, or four aircraft in all, managed to find the target and deliver their bombs on the runways.

Two B-57s also went to strike the IAF airfield at Jodhpur, which was reached at 20.40hrs, but only one was successful in finding its target. Jodhpur was attacked again in the early hours of 8 September by four B-57s, without conclusive results. Another strike was ordered at the request of PakArmy against the critical Beas Bridge, this time by three B-57s, which dropped 12 1,000lb bombs, but night bombing proved insufficiently accurate for a precision attack against a pinpoint target of this nature. Daylight reconnaissance indicated that the bridge was still intact but despite its importance to the Indian lines of communication to the battle area, further bombing attacks by the PAF were not attempted.



Above: In addition to almost continuous night attacks against IAF air bases, the Martin B-57s of No 31 Wing undertook a number of close support sorties for PakArmy forces in the battle area, including occasional daylight operations, usually with fighter escort. A PAF B-57 crew is seen here climbing into their tandem cockpit at the start of a sortie.

One of the biggest problems with the PAF night offensive was assessing its results, in the absence of any night reconnaissance capability. During the day on 8 September, two attempts were made to photograph Adampur and Halwara with a Lockheed RT-33A of No 20 Squadron, escorted by two F-104 Starfighters led by Flt Lt Aftab Alam of No 9 Squadron, but deep penetrations by the slow and vulnerable reconnaissance aircraft were generally unsuccessful. On the following day, however, Flt Lt Aftab Alam flew visual reconnaissance of Halwara in an F-104 which revealed that its runways were serviceable despite continued attacks. This intelligence confirmed the PAF decision to widen its airfield targets to include installations as well as runways, put into effect from the night of 9 September onwards.

Although the battle for superiority during the hours of daylight was decided in favour of the PAF within the first few days of the war, the IAF continued its Canberra night operations against the Pakistani airfields with impunity. Attempted counter-measures therefore included additional B-57 strikes against as many of the suspected Canberra bases as possible, and particularly the rear IAF airfields. This is how Ambala came to be included with Jodhpur, Halwara and Pathankot in the PAF targets for

the night of 8 September. By one of those curious coincidences, Ambala was where the C-in-C PAF Air Marshal Nur Khan, had first learnt to fly with the original Indian Air Force in 1941.

Apart from its distance inside India — nearly 400 miles from Peshawar, and over 260 miles from Sargodha — Ambala presented additional problems as a target in that it was believed to be defended by batteries of Soviet-supplied 'Guideline' SAMs. These are primarily high-altitude weapons which are considered ineffective much below 6-7,000ft, but their mere existence tends to force attacking aircraft to operate below that height, and thus within range of the lethal light AA fire.

It was therefore thought necessary for the PAF B-57s to stay very low during their attacks on Ambala — about 500ft was considered the upper limit — which resulted in additional problems of bomb-aiming and delivery. To avoid the B-57s being damaged by their own bombs, delay fuses of 4-5 seconds were necessary, but unfortunately, the only ones available were for 10 seconds. Weapons release at very low altitudes also necessitated the use of skip-bombing techniques, in which the bombs ricochet several times over the ground like pebbles bouncing off water, before finally arriving on target. This involves aiming ahead of the objective by raising the sight before putting it on the target, and the PAF B-57 crews had practised this technique with some success before the outbreak of hostilities.

To reach Ambala, too, it was necessary for the B-57s either to start from Sargodha or to refuel there on their return, or to fly much of the outbound leg at high altitude (thereby inviting IAF interception) to reduce the overall fuel requirements. The bomb load was also restricted to internal stowage only of 4,000lb per aircraft, on occasions. Two B-57s started the operations against Ambala on the night of 8 September, led by Wg Cdr Latif, but neither found the target. Both returned to base without dropping their bombs. Moderate success was achieved by the other B-57 missions that night, however. These included two attacks on Jodhpur by two and four aircraft, respectively, and one attack each on Halwara and Pathankot by sections of four B-57s.

Over the next four nights — 9-12 September — the B-57 raids were concentrated on the forward IAF airfields at Adampur, Halwara and Pathankot, with the PAF crews free to pick out specific targets in addition to the runways. They made good use of this change in tactics, and several fires were started. In the early hours of 9 September, four B-57s also attacked enemy ground concentrations on the Jammu-Samba road in support of PakArmy, and another close support mission by three B-57s, with an escort of a few F-86s, was led during the day by the station commander at Mauripur, Grp Capt Khaqan Abassi. This involved an attack on an ammunition train at Gadro by the three aircraft, each carrying 56 2.75in rockets in underwing pods, in addition to four 20mm cannon and 4,000lb of bombs. Occasional daylight operations by the B-57s were attempted only against targets close to the Indo-Pak border, despite absolute PAF air superiority. Throughout hostilities the B-57s were used for daylight close support operations only on seven occasions, and these missions were accepted by the PAF ops staff with great reluctance.

On the evening of 10 September, at 21.30hrs, the first of four B-57s took off for a close support mission at the request of PakArmy in the Sialkot sector. The others followed at the usual 15-minute intervals, and enemy ground targets in the Samba-Kathua sector were found by the simple expedient of the lead B-57 firing a brief burst from its 20mm cannon over the battle area. Intense enemy AA fire immediately revealed the Indian positions, although care had to be taken to mark the division between PakArmy and Indian troops during the subsequent B-57 attacks. Even then, night close support bombing usually involved area rather than pinpoint attacks.

One of the B-57s involved in this close support strike had a narrow escape from disaster when suddenly all four of its generator warning lights came on over the target, and it lost all its electrics. Apart from the loss of radio, IFF (Identification Friend or Foe) and other equipment, the B-57 could have encountered trouble from a critical centre of gravity position without electric power to pump fuel from the rear tanks. An unidentified intruder without lights coming in from Indian territory was assured of a warm welcome from the PAF, so while the B-57 headed back to Peshawar as soon as possible, the main problem for the crew was how to avoid getting shot down. Having reached Peshawar, they then had somehow to get the runway lights on without the necessary radio to pass the code of the day.

With great resourcefulness, the B-57 pilot saw another PAF bomber in the circuit, so cut inside it for the runway. Air Traffic Control at Peshawar saw this strange aircraft without lights overhead, and thinking it was a Commando transport, ordered the landing B-57 to shoot it up with its 20mm cannon. Having made a pass, however, the first B-57 recognised the second, and the situation was saved. On inspection, a 0.303in bullet from Indian ground fire was found to have severed the lead from all four generators between the front and rear cockpits.

By the night of 13 September, when Amritsar, Jodhpur and Jamnagar were again included in the B-57 strikes against IAF airfields, the PAF had completed 122 bombing sorties on enemy bases without loss due to hostile action. After the near-annihilation of the PAF B-57 force on the ground at Peshawar that night, however, recounted earlier, arrangements were made for the bombers to operate from the strip at Risalpur. The necessary refuelling and basic servicing facilities were made available at Risalpur, where six B-57s remained based until 22 September. Prior to this arrangement, eight B-57s had moved up every evening from Mauripur to Peshawar for raids against targets in the northern and central sectors, returning to Karachi the following morning, which involved an excessive amount of non-productive flying.

Although attrition of the PAF night bomber force had been low, with only one aircraft lost through weather up to that time, after the first three days of operations the official pull-out height for dive-bombing attacks was increased from 6,000ft above ground level to 8,000ft, to minimise the effectiveness of the Indian light AA guns. In practice, these limits were completely ignored by the PAF pilots, who were more interested in accurately positioning their bombs than avoiding enemy defences.

This is illustrated by an account of a typical B-57 night strike against Adampur, on 12/13 September, by Sqd Ldr Najeeb A. Khan, who commanded No 7 Squadron at Mauripur and completed 13 operations during the war:

'As usual, four B-57s were briefed to take-off from Mauripur to strike Adampur, via Peshawar, to which we were to return for refuelling. By now, we had been told to diversify our attacks from runways alone to other airfield installations. The airfield area was divided into four sections, and each crew was given a different aiming point for the attack. With eight 1,000lb bombs on board, we decided to make four attacks each, dropping a couple of bombs each time so that if we missed the first time round, we would be able to make three more attempts.

'My primary target was the fuel dump, but the other objectives included the maintenance area, hangars, aircraft pens and technical buildings. We had no trouble finding the target and as I opened the attack with my first two bombs, pulling out at about 3,000ft, I got a direct hit on the fuel dump, which promptly caught fire. I dropped my second pair of bombs on another section of the airfield containing aircraft pens and the maintenance area, which also caught fire, and went on to cover the remaining two sections in my third and fourth attacks. This was the most successful strike of the war so far as I was concerned, and the speed with which the fire started in the maintenance area indicated that several aircraft or fuel bowzers were involved.

'AA opposition was of its usual intensity, but as I could see it blazing away in all directions and I was the only aircraft over the target, I wasn't too worried. As I was exiting at low level, I called up my No 2, who had taken off about 15 minutes after me, and asked him if he could see the target. He replied that it was easily visible because of the fires, although he was then about 30 miles away. By the time the fourth B-57 had arrived the Adampur conflagration was visible from about 80 miles, but there was so much smoke that when he pulled up it was like going into cloud. He lost visual contact with the target, and dumped his bombs blind into the densest part of the smoke.'

Photo-reconnaissance the next day by an RT-33 escorted by four F-86s, which flew over Adampur at about 8,000ft, revealed the extent of the damage inflicted by the B-57s, and this was confirmed by postwar intelligence reports. At least four or five aircraft were reported to have been destroyed in one hangar, apart from the fuel dump, and a number of IAF personnel killed, including several pilots. By now, the PAF was confident of its capability of making deep penetrations into Indian air space, and the air staff drew up plans for strikes against even more remote targets should the necessity arise. Included among these were the IAF bases at Hindon, Poona and Agra, as well as more strategic objectives such

Right: Several IAF air bases in the Delhi area were thought to have been defended in 1965 by some of the first SA-2 'Guideline' surface-to-air missiles supplied to India by the Soviet Union, necessitating special tactics involving a low-level approach. The early SA-2s were only effective at medium and high altitudes, but forced attacking aircraft to operate within reach of light flak.





as the nuclear power site at Cambay, Bombay dockyards and military targets around New Delhi and Bombay themselves.

For the moment, however, all except airfield and close support sorties were ruled out by the C-in-C on political grounds. In fact the trend at this time, if anything, was towards a scaling-down of operations as with the fighters, as part of the overall PAF conservation policy. In practice, the B-57s maintained their nightly pressure on the key IAF airfields, with a considerable effect on the scale of air effort achieved by the enemy.

On the night of 14 September, the air bases at Jodhpur, Adampur, Halwara and Pathankot were again attacked, with varying success. At Halwara, the B-57 crews started fires in the aircraft pens where several Hunters were recognised silhouetted against the flames. At least three or four were believed to have been destroyed. AA fire was as intensive as ever, and at Adampur, the Indian gunners scored their first and only success of the war against the B-57s.

The aircraft concerned, flown by Flt Lt Altaf Sheikh, with Flt Lt Bashir Chaudhari as navigator (both later squadron leaders), had taken off from Peshawar just after 22.00hrs and had climbed to altitude before beginning the let-down at Sahiwal for the IP at Ferozepur Bridge. This was the 12th B-57 mission for the pilot and the eighth for the navigator, although neither had flown with the other before. A position check was obtained abeam Jallunder and when Adampur was reached on schedule, Flt Lt Sheikh pulled the B-57 up for its dive attack, in the face of the usual intense AA fire.

At the first attempt, the bombs failed to release, but the second attack was successful. The B-57 had just pulled up to about 8,000ft after dropping its bombs when it shuddered from a direct hit from a medium AA shell in the port (No 1) engine. The long spear of flame this left behind attracted other AA fire, and after more damage had been suffered to the elevator, Flt Lt Sheikh yelled over the RT, 'I've lost control.'

From his tone of voice, Flt Lt Chaudhari knew there was no hope of saving the aircraft, and he immediately activated the first trigger on the side of his ejection seat to blast off the long transparent canopy covering the tandem cockpits of the B-57. A second pull on the trigger, and Flt Lt Chaudhari was fired out of the stricken B-57 into the blackness of the night, closely followed by his pilot. Both experienced violent tumbling in their seats before the automatic harness release mechanism fired, pitching them clear and pulling out their parachutes. They landed about a mile apart in the darkness, Flt Lt Sheikh spraining his ankle in the process, and set about burying their parachutes. As the moon rose, they were fortunate to meet up, with a feeling of intense affection, and made hurried plans for their escape to Pakistan.

Despite the pain from his swollen ankle and having to wade through stagnant water, Flt Lt Sheikh managed to cover, with his navigator's assistance, 12-13 miles towards the east before daybreak, at about 05.00hrs on 15 September. The two PAF airmen then hid in some crops to try and pass the long day undetected, but were seen by some Indian women cutting grass at about 09.30hrs. As they ran to fetch help, the Pakistani crew moved along the fields until they reached a sugar cane

field, where they remained undetected until about 13.30hrs. They could hear Indian villagers searching for them, not too energetically and very cautiously, but then police and the military arrived and shouted instructions to shoot to kill if the fugitives continued their efforts to escape.

Reluctantly, the two Pakistani airmen emerged from their hiding-place and surrendered, but right from the beginning the Indians made no attempt to observe the Geneva Convention regarding prisoners-of-war. The PAF airmen were promptly handcuffed, blindfolded and relieved of all personal possessions, while the villagers pleaded for them to be handed over 'for just five minutes' so they could be beaten up. They were first taken to the civil jail in Jallunder, in filthy conditions and briefly interviewed by the Officer Commanding Adampur before being transferred on 16 September to the guardroom of Palam air base, Delhi, in an IAF Antonov An-12 transport, still blindfolded.

At Palam, they were interrogated by civilian intelligence personnel and remained in separate cells on the airfield without notification of their capture to the Pakistani authorities, until the cease-fire on 23 September. They were imprisoned in the utmost squalor. High-powered bulbs were left on constantly in their cells, preventing them from sleeping, and the only food they were given was grain which they were forced to eat blindfolded and with one hand manacled. On 24 September, they were joined by Flg Off Islam Shaskat, who had been shot down over Taran Taran while flying an F-86 as Sqn Ldr Alam's wing man, and the three PAF personnel were transferred to improvised cells at the IAF training establishment, Gurgaon, near Delhi.

There they remained — still without notification to the PAF or their families — until 10 December, but receiving a monthly allowance of Rs54 as stipulated in the Geneva Convention, and receiving reasonable meals in the Airmen's Mess. Their letters home, however, were never forwarded, and it was not until the end of December that their survival was announced by India. On 11 December, they were sent by train to a prisoner-of-war camp at Agra, with insufficient clothing for the winter, and there they stayed with many PakArmy prisoners, although in solitary confinement, until returned to Pakistan on 21 January 1966.

B-57 attacks during the night of 15 September 1965 included the first strike to be made against the IAF airfield at Sirsa, in the southern Punjab, in addition to a routine visit by three aircraft to Halwara. Despite its distance inside India — it is about 220 miles south-east of Sargodha — Sirsa was attacked by three B-57s carrying their comparatively rare maximum load of 8,000lb of bombs each. Visibility in the target area, however, was so bad that the bombs had to be released blind, on dead reckoning, which is categorised as an unsuccessful attack by the PAF. Yet another trio of B-57s undertook a close support sortie in the Samba sector, at the request of PakArmy, on 15 September, delivering a total of 21,000lb of bombs on Indian troop concentrations, vehicles and armour.

In addition to the usual strikes against Halwara and Adampur, the operational programme for the night of 16 September included another attempt by a single B-57

to attack Ambala. This was in the nature of a test exercise against this heavily-defended rear IAF airfield, which was thought by the PAF to be used as a 'secure' overnight parking and dispersal area for Indian Canberras and other operational aircraft. On this occasion, Ambala was found without undue difficulty, and the airfield was skip-bombed from very low altitude, according to schedule. It was not possible to observe the results of the strike, but on the following day, All-India Radio claimed that the PAF had bombed a hospital on the outskirts of Ambala, causing a number of casualties.

PAF aircraft, returning to their bases in the early hours of 17 September, encountered some very peculiar meteorological conditions. These were particularly severe in the Punjab, where violent winds and dust storms reduced flight visibility to the minimum. A strong wind sheer also made it very difficult for landing aircraft to line up with the runway lights, and was the cause of two serious accidents to PAF aircraft. One was an F-104, which crashed on the approach to Peshawar, as recounted earlier, while the other was a B-57 attempting to land back at Risalpur. Flown by Flt Lt M. A. Butt, with Flt Lt A. S. Z. Khalid as navigator, the B-57 hit an officer's bungalow south of the runway while on the approach to Risalpur, and both crew members were killed. Fortunately, there were no other casualties as the occupants of the bungalow had just stepped out for a walk. This was the fourth and last B-57 to be lost during hostilities by the PAF, including the ELINT RB-57B shot down by Pakistani ground fire.

In keeping with its characteristically offensive spirit, the PAF had modified its single RB-57F 'Droopy' ultra-high altitude ELINT and reconnaissance aircraft by 16 September to carry up to 4,000lb of bombs. This resulted in a specialised weapons system capable of day and night bombing from heights of around 67,000ft, which the PAF thought would be well above the interception capabilities of the Indian air defence system. Bombing trials with the modified RB-57F were undertaken successfully on 19 September, but the 'Droopy' was never used operationally in this role.

The nightly milk run against the IAF forward airfields continued on 17/18 September and, as Sqn Ldr Najeeb Khan commanding No 7 Squadron of B-57s said, 'One or other of us went to one of the IAF airfields every night of the war.' 18 September also marked the renewal of the PAF offensive against Ambala, which this time was undertaken by two B-57s. These were flown by two of the PAF's most experienced bomber crews. First off was Sqn Ldr Najeeb Khan, with Flt Lt William B. Harney as his navigator, followed about 20 minutes later by the second B-57. This was piloted by Wg Cdr Nazir Latif, the Bomber Wing leader, with Sqn Ldr Aurangzeb Khan, the wing navigational leader, in the rear cockpit.

Taking-off from Peshawar, with a full bomb load of 8,000lb, the two B-57s went low level all the way, with a TOT for the first aircraft of 01.00hrs. In a subsequent report on this mission, Sqn Ldr Najeeb recalled:

'The Grand Trunk Road and railway line running up to Ambala provided a good lead-in, and our low-level navigation provided few difficulties despite the fact that the moon was not due to rise until about 10 minutes before our TOT. Due to widespread haze, visibility was

extremely poor, but precisely on schedule, my navigator announced "Approaching target, 11 o'clock".

'A lot of tales had been going around about Ambala and its defences. Opening the bomb doors, I braced myself for the ordeal, and went straight in for a skip-bombing run. We were flying very low — not more than about 200ft above the ground — and the darkness was intense. Suddenly the sky around us lit up with an intense barrage of tracers and shell-bursts, and we seemed to be caught in a web of AA fire. Somehow, we managed to avoid being hit, however, and the flashes from the guns helped in picking out the silhouette of the hangars, which were our target.

'On our first run in, I released the four 1,000lb bombs in the fuselage bay, without apparent result, and the second time I dropped the wing bombs. The results were fairly discouraging, with very little to show for our attacks, and we subsequently discovered that our 1,000lb bombs were skipping much further than we had anticipated. In fact, they seemed to bounce like tennis balls, and some are believed to have travelled as far as 6-7,000ft. A number of our bombs exploded outside the airfield area because of the underestimated skip distance.'

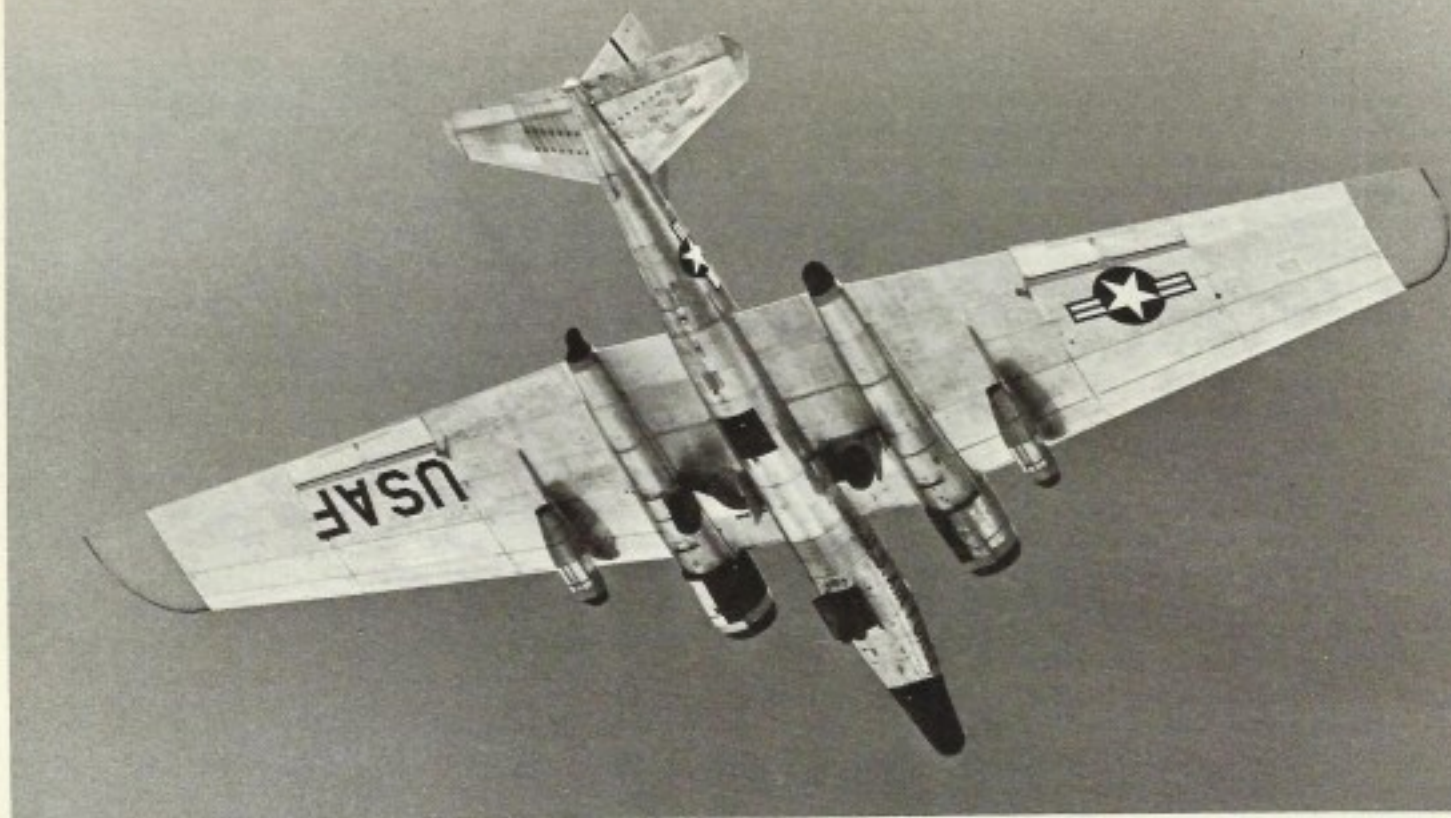
Following on behind, Wg Cdr Latif met with little more success against Ambala, although both B-57s released their bombs in the airfield area. After this first attack, an American news magazine published a story that the IAF had lost 25 aircraft as a result of the PAF strikes against Ambala. The Pakistani air staff discounted reports of major damage, however, and considered the main effect of the first Ambala raids to have been on Indian morale.

Jamnagar was also revisited in the early hours of 19 September, after a respite from B-57 attacks lasting several days. This was usually a popular target in view of its proximity to Mauripur, its simple navigational problems because of its proximity to the coast, and its relatively light AA defences. On this occasion, however, heavy ground fire greeted the B-57 stream, although this did not deter the PAF crews from making an accurate and concentrated attack, resulting in several fires.

Another attempted strike against Ambala by two B-57s, starting from Sargodha, was thwarted by an attack on this PAF base by Indian Canberras, which prevented Wg Cdr Latif and his navigator from taking off. His No 2 got off, in another B-57, but failed to find the airfield at Ambala, and abandoned the mission. On another occasion, Wg Cdr Latif, who was given a free hand by Air HQ in the planning and execution of the airfield strikes, wanted to try a new route to Ambala which would reduce the risk of interception from IAF night-fighters. These were occasionally seen by the PAF bomber crews, who were confident, however, that the Indians had no real night-fighter capability.

To minimise detection and possible interception by the Indian defence system, Wg Cdr Latif had the idea of flying through a shallow valley or gully just after passing Pathankot, en route to Ambala. This was made possible with the help of the B-57's terrain-avoidance radar, and he decided to try this route for himself. He reported:

'I found the gully on radar and let down into it, just above the ground. We carried on flying through it without much difficulty when I happened to look up for a moment from



Above: The single GD-modified RB-57F 'Droopy' in PAF service during the 1965 war, of the type shown here in USAF markings, overflew most of the IAF airfields during hostilities at heights up to 67,000ft or more on reconnaissance. This was out of reach of all IAF fighters then in service, but on beginning its let-down to Peshawar from Ambala, the RB-57F was straddled at about 52,000ft by two SA-2 'Guideline' SAMs, which caused major structural damage and knocked out one of its auxiliary turbojets. The RB-57F landed safely back at base with the nosewheel jammed up, but was subsequently repaired by the PAF before being returned to the US.

my radar scope and coming straight at us I saw a big silver aircraft. It had its navigation lights on, and it was so close that I thought we were going to collide. We didn't, although it passed so close overhead from about the 2 o'clock position that we both heard the roar of his jet engine.

'I immediately broke towards him and pulled up out of the gully — it was no place to start flinging an aircraft around. At the same time, I hit the bomb jettison switch, although I soon discovered that I'd dropped the load live. I'd set up all the switches so that we would be ready to drop on our run in, and I pressed the normal release instead of the jettison switch, so the whole lot went up. We were only at about 1,000ft above ground level at that time, and the normal safety height for 1,000lb HE bombs is 2,800ft, so we were quite shaken up.

'In the meantime, the other aircraft had turned back towards us, still with its navigation lights on, which enabled us to keep an eye on it. My navigator pointed towards it and said, "Can you see him?" and I said, "Yes," as it came at us once more. We were of course without lights and with no bombs on were quite manoeuvrable, but we had been forced to abandon our mission. When we turned round, we found the aircraft some distance ahead of us and although it was way out of

range, I elevated my sight as high as possible, and started firing 20mm after him.

'I didn't positively identify this aircraft, but being silver and apparently trying a night interception, it could have been a MiG-21. We didn't hit it, of course, but as we could see more navigation lights in our vicinity, I called up our No 2, who was about 15 minutes behind us, and told him to turn back. This was the only occasion that we encountered IAF night fighters, and the only time they caused us to cancel a planned attack.'

After more routine attacks against Halwara and Jodhpur during the night of 19/20 September, one final strike was mounted on Ambala on 20/21 September, in addition to visits by three B-57s each to Adampur, Halwara and Jodhpur. The last Ambala raid was led by Wg Cdr Latif, with Sqn Ldr Aurangzab Khan again acting as navigator, followed in the usual stream by Sqn Ldr Najeeb Khan as captain of the No 2 B-57, and Sqn Ldr Lodhi as No 3.

This time, Wg Cdr Latif flew all the way from Peshawar at about 200ft, his navigator bringing him on track to within about half a mile of the target. Complete surprise was achieved by the first aircraft, which encountered no AA fire apart from small arms from the Ambala area. In bright moonlight, the IAF air-base lay before the B-57 crew, who could see cars with their headlights on streaming along the road running past the airfield.

From previous experience, the bombs were released much earlier than had previously been tried during skip attacks, although the behaviour of the 1,000lb HE weapons remained unpredictable. These were the only bombs, however, for which short delay fuses were available. This attack on Ambala appears to have been the most successful of all, and although the subsequent B-57s encountered heavy AA fire, all three aircraft delivered their weapons on target. The Indians subsequently made a considerable fuss about damage to



the adjacent cantonment of Amritsar, including hits on a church built near the edge of the airfield, but skip-bombing proved to be possibly the least accurate method of weapon delivery.

An amusing sidelight of these Ambala attacks is that, after the first night, the Indian AA gunners stopped firing high and aimed directly at the low-flying B-57s, which resulted in considerable damage to nearby buildings and installations being caused by their own guns. Sqn Ldr Najeeb saw at least one building at Ambala set on fire by shells from an Indian anti-aircraft gun. Immediately after the cease-fire, Ambala and some of the other rear IAF airfields were reconnoitred for damage assessment by the RB-57F, flying at maximum altitude.

The 'Droopy' overflowed most of the airfields attacked by the PAF during the war, and its crew monitored IAF RT directions urging MiG-21s to intercept the high-flying target at a height of '20 kilometres' (65,617ft). Suitable interception techniques had not been worked out for these sort of heights, however, although the Indians perhaps had the last laugh, after all. Somewhere in the vicinity of Ambala, when letting down for its return to Peshawar, the RB-57F was straddled by two 'Guideline' surface-to-air missiles, when it was at a height of about 52,000ft. One SAM exploded above the RB-57F, and the other just below it, causing major structural damage, and knocking out its two smaller jet engines.

Somehow, the big 'Droopy' was nursed back to base, where it was found that the nosewheel would not extend, so the crash barrier was rigged on the runway at Peshawar, and the RB-57F skidded along it with only the main undercarriage extended. More than 170 holes, from one foot in diameter downwards, were found in the honeycomb skin of the RB-57F, and with the damage incurred on landing, would have more than justified writing off this valuable high-performance aircraft. PAF maintenance personnel pleaded to be allowed to try and repair it, however, and although they had to borrow a few

Above: One of three B-57 crews lost during the 1965 war, Sqn Ldr Alam Siddiqui and his navigator, Sqn Ldr Aslam Qureshi failed to return from a night attack against Jamnagar airfield. The crew of a fourth B-57 ejected safely and became prisoners-of-war.

technical personnel from Pakistan International Airlines who were familiar with the resin-bonding of metal, the RB-57F was made fully serviceable again within about a month. This was an extraordinary technical achievement and one of the best illustrations of the skill of the PAF ground crews.

After 15 September, the PAF air staff found evidence of IAF withdrawals from their forward airfields, as a result of the incessant B-57 bombing, which if nothing else must have resulted in a considerable diminution of Indian air effort. No claims for aircraft destroyed on the ground by the B-57s were included in the PAF damage assessments, despite Indian reports to the contrary.

Commenting on the PAF night raids, the postwar report put out by the Indian Ministry of Defence said:

'...Accurate AA fire usually made the Pakistani pilots drop their bombs in a hurry and scuttle away. While the fact was that B-57 night raids failed to hit any worthwhile installations, Pakistan continued to churn out fantastic claims of aircraft destroyed and airfields put out of action. For example, after a night raid on Ambala, the enemy claimed 27 Indian aircraft destroyed on the ground [this was the claim made by the American news magazine, not the PAF], whereas in reality, except for a section of the old flying control tower, none of the airfield installations, let alone a single aircraft had even been damaged.

'All the enemy bombs had fallen on non-military targets. Then again, the airfields at Pathankot, Adampur and Halwara were claimed to have been put out of action. The air attachés of foreign countries who were taken



round all the airfields in the Punjab after the cease-fire were able to see at first-hand that none of these airfields had been put out of commission or rendered inoperative for even a single day.'

The latter demonstration, of course, had little validity after the event, but the PAF did not feel displeased with its B-57 campaign. This came to an end with a close support sortie during the night of 22 September by four B-57s, which dropped a total of 28,000lb of bombs on enemy artillery and tank concentrations at Atari. Large enemy reinforcements had been seen that day moving towards Atari for a possible assault on the salient on the eastern bank of the BRB Canal. It was the task of the PAF to prevent these reinforcements from reaching their destination, and the bombs from the B-57s dropped 'in train' engulfed the enemy armour and other vehicles concealed under the trees and in the bushes. Very few survived to reach Atari.

The small PAF force of 22 B-57 bombers had thus delivered just over 600 tons of bombs on Indian targets in the course of 167 successful sorties, in addition to a further 30 tons or so attributed to another 19 unsuccessful sorties. This compares with an estimated 92 night bombing sorties against PAF targets by more than 60 IAF Canberras. The dedication of the PAF B-57 crews is illustrated by the example of Flt Lt Syed Shamsuddin Ahmed who flew a large number of missions during the war, with Sqn Ldr Shoaib Alam Khan as navigator, despite intense pain from kidney stones. He was operated on the day after the cease-fire, and one kidney had to be removed. Both pilot and navigator were awarded the SJ, which was also received by more than a dozen other bomber aircrew.

Three of the PAF B-57s were lost in these operations, although only one as a result of enemy action. Of the IAF airfield targets, Halwara received the most attention from the PAF B-57s, which dropped a total of 134 tons of bombs on it, followed by Jodhpur (98 tons), Adampur (85.5 tons), Pathankot (77 tons), Jamnagar (66.5 tons), Sirsa (12 tons), Jammu (10.5 tons), Ambala (10 tons), and Srinagar (7 tons). Close support targets received 77.5 tons of bombs from the B-57s, which also delivered 10.5 tons against the Beas Bridge, two tons in the Gadro area, and 14 tons on Amritsar radar.

Above: By modifying the rear loading ramp of the Lockheed C-130 so that it could be opened in the air above speeds of 150 knots, the PAF was able to convert its Hercules into night bombers during the 1965 war, for saturation attacks against battlefield targets. Each Hercules was modified to carry up to 22,000lb of HE bombs, which were rolled out of the rear ramp on pallets over the target. The IAF later came up with a similar idea for its Antonov An-12s.

There was another aspect to the PAF night bombing campaign which has not previously been mentioned, but was typical of the Pakistani genius for improvisation. The immense load-carrying capabilities of the RAF Lockheed C-130s, coupled with the frequently demonstrated ability of No 6 Squadron's crews to drop supplies in all types of weather conditions into designated areas in the mountains as small as 3-4,000ft across gave the station commander of the Transport Wing at Chaklala, Rawalpindi, Grp Capt (later Air Cdre) Eric Hall the idea of using these big transports as bombers. Before the 1965 war, the PAF had adapted its smaller twin-engined Bristol Freighter transports to carry a 4,000lb bomb beneath each wing, and No 6 Squadron had undertaken a limited amount of training for the night bombing role against lightly defended targets. The normal load capacity of the C-130, however, was well over 20,000lb, which gave it a bombing potential equivalent to the heaviest bombers of World War II.

When Grp Capt Hall proposed the use of the C-130s as heavy bombers to the C-in-C on 8 September 1965, Air Vice Marshal Nur Khan reacted with characteristic enthusiasm, despite a certain coolness from the operations staff, and told him to go ahead as quickly as possible to develop his ideas. In collaboration with the officer commanding the Transport Wing, Wg Cdr (later Grp Capt) Z. Butt, who had pioneered night supply dropping on radar, Grp Capt Hall set about modifying the C-130 for its new role.

To utilise the maximum load-carrying capabilities of the C-130, the bombs would have to be carried internally in the cargo hold, and released in a similar manner to the supplies, through the rear cargo ramp. With the ramp and rear doors open, however, the C-130 is structurally limited to a maximum speed of only 150 knots. First problem to be overcome was therefore to seek means of raising this to a much higher figure, to reduce the C-130s

vulnerability to ground fire or interception to a minimum. Wg Cdr Butt concentrated on modifications to the doors and ramp to reduce their drag and load factors, when extended, to acceptable limits, while Grp Capt Hall studied the best means of stowing and releasing the bombs.

Removing the most drag-producing lower portion of the ramp and one or two other modifications quickly boosted the limit speed in the dropping configuration to no less than 280 knots. Stowage and release problems were equally simply solved by placing the bombs in cradles attached to large pieces of plywood board acting as pallets. These were lashed into position until ready for dropping, when they simply slid out of the cargo hold on the standard floor rollers after the aircraft nose was raised in a slight climb, with the help of gravity and a small extraction parachute. The bombs were not secured in any way to the pallets, which quickly separated in the slipstream, leaving the weapons to fall free.

The practicality of this idea was soon confirmed by Wg Cdr Butt with the individual release of 1,000lb bombs with short delay fuses over the Mauripur range on 9 and 10 September and two of the PAF's five C-130Bs were accordingly modified for the night bombing role. Initially, about six hours were required to convert a standard C-130 to the bombing configuration but this was eventually cut down to about 2½. The speed with which the whole idea was developed is indicated by the fact that within only three days, No 6 Squadron was ready for its offensive operation by the night of 11 September.

As conceived by Wg Cdr Butt, who was determined to undertake the first bombing mission, the optimum tactics for the unarmed C-130s would be to approach the target fast and low, to avoid detection, and to stay as low as possible during the attack and exit. No bombsight, of course, was fitted to the C-130s, whose crews would use the same aiming techniques for bombing as for supply dropping. In preparing his approach to the first target, which was a bridge at Kathua, only 10 miles or so East of Pathankot, Wg Cdr Butt based his calculations on a low-level approach and bomb release, at the maximum speed of about 280 knots. This, he estimated, would give the Indian defence system an approximate reaction time of only seven minutes between detection of the C-130 and the start of its bombing run, reducing the risk of interception to a minimum.

Shortly before take-off, however, he received a call from the operations staff at Theatre that the bombing run would have to be done at a minimum height of 8,000ft, to reduce the vulnerability of the C-130 to light flak. This decree was apparently triggered off by the loss, a couple of days earlier, of Sqn Ldr Iqbal in an RB-57B, to Pakistani light AA fire. Wg Cdr Butt strongly contested this decision which, he pointed out, would mean starting his pull-up to reach 8,000ft over the target with the heavily loaded C-130, some 23 miles out from Kathua. And at 8,000ft virtually in the circuit of Pathankot, the C-130 would be a sitting duck in the moonlight for any patrolling fighter.

Theatre, however, were adamant that the attack must be made from 8,000ft or not at all, so Wg Cdr Butt was forced to acquiesce, under protest. Grp Capt Hall said,

'This looks like a suicide mission — do you want to do it?' Butt muttered something to the effect that you only die once, and the station commander said that he would come along on the mission.

With 18 1,000lb bombs on board, the C-130 took off in the early hours of 12 September, and stayed at 2-300ft above the ground on radar for as long as possible, as originally planned. Wg Cdr Butt had carefully calculated the rate of climb with the load carried for the pull-up calculations, and as 8,000ft was reached, the navigator gave a small course correction to bring the C-130 out on to its bombing run. Wg Cdr Butt reported:

'In the last minute of the run in I saw the navigation lights of an aircraft heading towards us from our right. At first I thought it was a star, but then I saw that it was moving. As we were only 40 seconds away from bomb release, I decided to say nothing, although before take-off I had warned my crew that if the IAF was on the ball, we would probably be intercepted over the target. By the time the navigator had called "Bombs gone", the aircraft had passed in front of us, and I lost contact with him as he passed behind our port wing. I immediately transmitted that we were being tracked by a fighter, and I asked our loadmaster in the freight hold to keep an eye behind for enemy aircraft.

'He called, "there's something coming in, with no nav lights," whereas the first aircraft we had seen had its nav lights on, and although I wanted to descend and take evasive action, we were still travelling at around our maximum speed of some 280 knots. Unlike combat aircraft, transports are built to much lower strength factors, and I knew that if I tried a tight turn at this speed, we would lose an aileron or even a wing. So I throttled back and pulled straight up, to reduce the speed to about 160 knots. I knew the C-130 was stressed to take a maximum of about 3g in a turn, so I pulled round hard to just about this figure, opening up the power at the same time to maintain about 130 knots.

'Naturally, the fighter couldn't match that tight turn, and he overshot us so that he appeared just ahead and below. If I'd had a front gun or two, I could have shot him down, but of course the C-130 is unarmed. Unfortunately, our evasive action had brought us out more or less over the top of Pathankot, whose AA defences opened up on us in no uncertain fashion. I could see the light AA fire passing well below us, but a couple of medium guns were sending shells to burst some way above. Because of the light flak, I had to delay our descent until we were clear of the IAF airfield, but I then throttled back and reached tree-top height in just 2 minutes 44 seconds.

'During our low-level exit, I continued taking evasive action, and we did not relax until we had crossed the border and climbed up to contact our GCI. We got back without further incident, and the only damage we found to the aircraft was a 0.5in bullet hole in the port wing-tip.'

Although the immediate results of this initial C-130 strike could not be confirmed, the impact on Indian forces around Kathua of the arrival of nine tons of bombs as a single load was thought to be considerable. Next day, All-India Radio announced that the PAF was now using four-engined bombers of Chinese origin, which appears to

be a case of mistaken identification by the IAF fighter crews of the C-130 in the moonlight over Pathankot.

After the success of this first C-130 strike, the PAF transports went on to complete another 13 offensive missions before the cease-fire. Since the operations staff continued to insist on a minimum bombing height of 8,000ft, however, these missions were restricted to Indian Army targets in the vicinity of the border, on the recommendation of Wg Cdr Butt. It was never revealed by Pakistan that the C-130s were being used as heavy bombers, although the Indians must have had strong suspicions from the subsequent attacks. From their para-Commando capabilities alone, the C-130s were attractive ground targets for the IAF, and in between operations, the main concern of No 6 Squadron was in concealing their big aircraft from the enemy.

Chaklala was attacked by IAF Canberras from the very beginning of the war, but the C-130s were then well dispersed, and subsequently operated overnight from a variety of other bases, including Peshawar, Risalpur and Kohat. Although the Indians claimed to have shot down several C-130s during the war, Grp Capt Hall was able to line up all five in the PAF inventory at Chaklala, when this was visited by the IAF C-in-C after the cease-fire.

After Kathua, the next target for the C-130 bombers was a concentration of enemy tanks and guns, three miles north of Ramgarh in the Sialkot sector. Two C-130s were used for this operation, during the night of 15 September, each dropping 18,000lb of bombs in their single runs over the target, and played a major part in shattering the enemy forces moving up for the Battle of Chawinda. As desperate fighting continued to rage around Chawinda, which stood firm against incessant Indian attacks, the C-130s were called upon again during the night of 17 September. This time three sorties were made by the two modified transports, one against the enemy tanks and guns near Ramgarh, once again, and two on Indian ammunition and fuel dumps 10 nautical miles from Sialkot. Nine tons of bombs were again dropped as a single load during each sortie, and a single C-130 strike was repeated against Ramgarh on the night of 18 September, destroying enemy tanks and guns, as well as ammunition and fuel dumps.

All the C-130 missions were flown in the Lahore and Sialkot sectors, where ground fighting was at its most intensive, and this concentrated bombing proved a real secret weapon for the Pakistanis. In the hours of darkness on 19 September, two successful C-130 sorties were made against Indian Army concentrations in the vicinity of Rurki and Pagowal, and apart from the resulting material damage, the effect on enemy morale was believed to be devastating.

By this time, the dedicated crews of No 6 Squadron had managed to boost the bomb load of their C-130s to no less than 22,000lb, which was the weight dropped by a single PAF Hercules on enemy heavy artillery four miles south-east of Jallo on the night of 21 September. Another C-130 that night dropped 18 1,000lb bombs on Indian artillery concentrations at Valtoha, where many subsidiary explosions were seen. This was part of the Indian attempt to concentrate their heavy artillery fire on Lahore in the closing stages of the war, and PAF made an all-out effort by day and night to counter this move.

The C-130s played an invaluable part in this final battle and in fact in its closing stages, their unique round-the-clock capabilities were to prove decisive. Bad weather hampered PAF strike action against the assembled Indian artillery on 22 September, but did not prevent three C-130s taking off that night to find the enemy target and drop their bombs by radar. One of the big Hercules dumped nine tons of bombs in one load in the early hours of the morning on the Indian guns at Valtoha, while the other two, led by Wg Cdr Butt, each delivered 22,000lb of high explosive in about three seconds in the Wagah-Atari area.

In the case of the second target, the Indians had brought their guns to an area around Pulkanjari very close to the BRB Canal, which the PAF was anxious to avoid breaching, but the standard of bombing reached the usual accuracy. The target at Atari included an Indian AA Regiment with 72 guns, located in a strip about one mile long running parallel with and close to the BRB Canal. This operation aimed at saturating the area with the maximum weight of explosive in the shortest possible time. The two C-130s reached their check point, on the River Ravi, at 23.00hrs. on 22 September, and started their carefully-timed run-in, cross-checking with their radar. Bombs were released simultaneously at the appropriate second, when more than 20 tons of TNT devastated the Indian artillery. Many subsidiary explosions were seen by the C-130 crews, who were subsequently credited with more than 40 Indian guns destroyed.

A postwar assessment of C-130 bombing by the PAF indicated a maximum circular error for the 264,000lb of bombs dropped of about a mile in accuracy, with an average for No 6 Squadron of plus or minus 600yd. For area bombing, these figures were highly satisfactory, and one or two of the C-130 crews were able to deliver their loads with an accuracy of about 100yd. Although the transport force was fortunate in operating without loss during the 1965 war, it is difficult to speak too highly of their crews. Unlike their B-57 and fighter counterparts, the C-130 crews were operating in lightly built and unarmed transports with no means of rapid escape such as ejection seats. They knew that in the event of trouble the chances of them being able to clamber down from the flight deck and escape by parachute were remote indeed. But their dedication and devotion to duty remained unswerving.

A final sidelight on the PAF transport operations was that these were reinforced at the outbreak of war by the addition of four Bristol Freighters, which went into service with No 12 Squadron at Chaklala. Normal responsibility of this unit was operation of the Presidential Viscount. Although these venerable twin-engined transports had not flown for a couple of years or more, the maintenance staff of the Transport Wing set to and got them in flying condition within a few days for short-range airlift operations, carrying up to 8,000lb at a time. The Freighters did a very useful job in supplying the forward PAF airfields, flying a total of more than 200 hours. Like the C-130s and the B-57s, the Freighters were kept at 100% serviceability during the war, after which they were again withdrawn from service and sold to the Royal New Zealand Air Force.

19. Conclusions

The 22 day conflict between India and Pakistan in 1965 was not, perhaps, a classic example of the employment of air power. It was, however, an epic in that a small but determined and aggressive air force, well trained and well-led, gained unquestionable superiority over its adversary, although heavily outnumbered, by the intelligent employment of its resources and the dogged determination of its leaders and its rank and file.

It was remarkable, in addition, for the lack of political foresight which preceded it, and for the equal absence of political direction once it had started. The commanders-in-chief of the army and the air force were, it seemed, left very much on their own so far as the aims of their operations were concerned, within an overall posture which was essentially defensive in that Pakistan had no plans to attack its infinitely bigger and better-equipped neighbour.

It will be for other historians to judge the wisdom of Pakistan's excursion into Kashmir in 1965, (in which Mr Bhutto was involved as Foreign Minister) but the timing was hardly propitious in view of the US arms embargo imposed on both Pakistan and India following the Rann of Kutch incident earlier that year. This did not, as it happens, affect the operations of the PAF except to establish acceptable attrition rates, but the lack of planning preceding PakArmy mobilisation is illustrated by the fact that within a week or so of the start of hostilities, battlefield units were down to only a few days' reserves of supplies and all types of ammunition.

When acquainted of this fact on about 10 September by the Cs-in-C of the PakArmy and the PAF, President Ayub Khan, Air Marshal Nur Khan recalls, was 'pale and speechless', despite having previously rejected the latter's request for an emergency Cabinet meeting to discuss the progress of the war. Until as late as 6 September, the government of Ayub Khan was still operating on a normal peace-time basis, but when the army found itself rapidly running out of tank and artillery

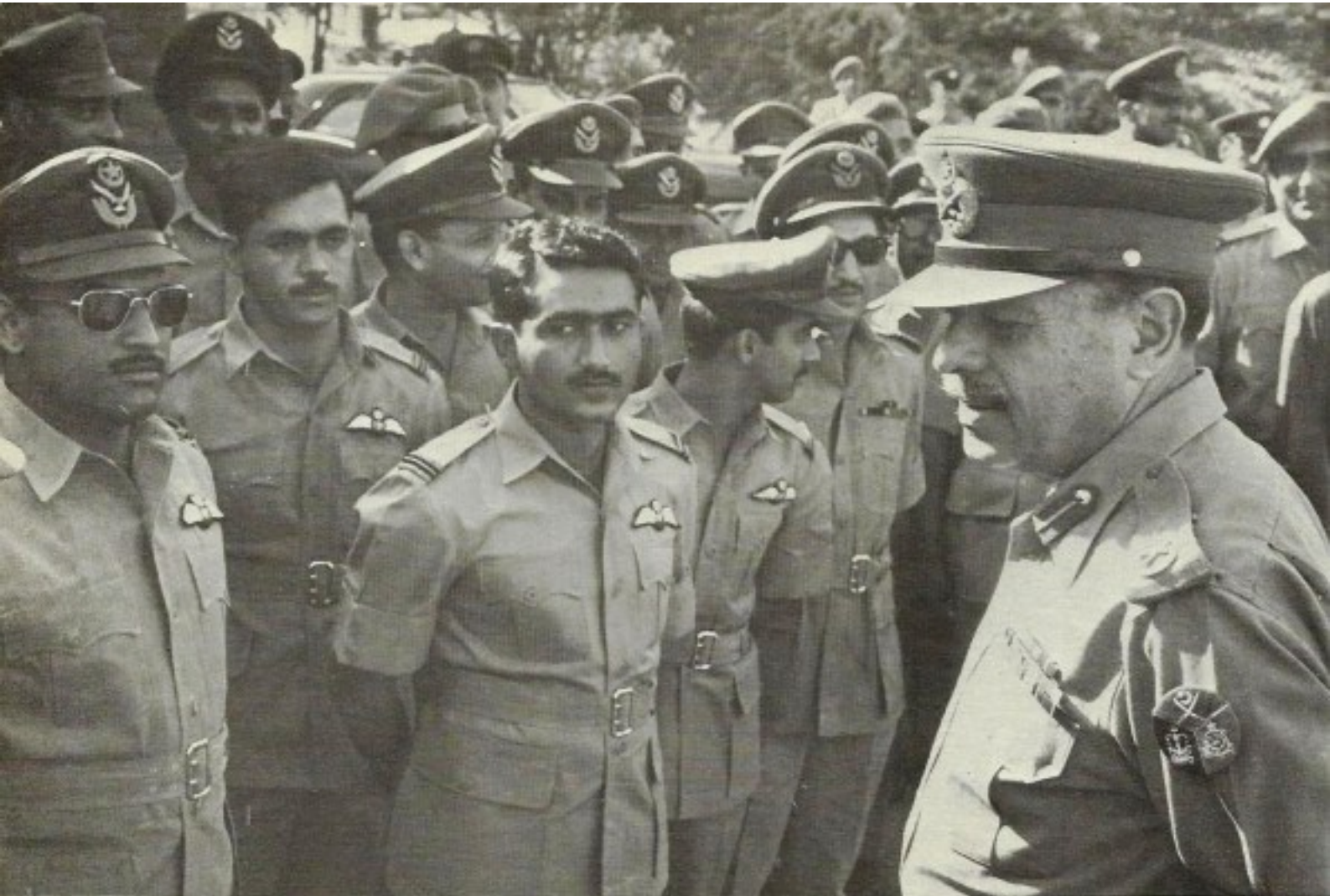
ammunition, a full scale war footing was finally achieved.

Air Marshal Nur Khan then suggested that former PAF C-in-C Air Marshal Asghar Khan should go to Iran and China in search of additional ammunition and military equipment. The required shells and supplies were then flown in from Turkey and Iran, while additional equipment arrived by train.

Pakistan was fortunate that India did not concentrate its greatly superior air strength against the PAF in 1965. Although heavily outnumbered, hampered by slightly inferior performance of its main fighter type, and with only one really effective air base and a single radar in the main battle area, the PAF was thus able to achieve predominance over the IAF within 36 hours of the opening of hostilities. This also enabled it to fulfill its mission of gaining local air superiority over the main land battle zone between Kashmir and the Sutlej River. Once gained, this superiority extended over the whole of Pakistan, including the Eastern Wing.

As the primary aim of Air Marshal Nur Khan, PAF air superiority achieved over the areas where PakArmy was engaged in battle with numerically larger forces ~~allowed it to move~~ and fight unhindered by the IAF. Despite predictions to the contrary, the PAF also had sufficient effort to spare to attack the Indian army at will, thus hampering its combat capability. This influenced the land battle far beyond the expectations of PakArmy, as soon as units of the latter attacked in Chhamb, and this influence remained until the cease-fire.

Intervention of the IAF as early as 1 September was anticipated by the PAF, which promptly shot down four Indian Vampires. Without this effective counter, PakArmy's attack in Chhamb would have been in serious difficulties. As it was, one PakArmy infantry battalion (9 Punjab), caught by the IAF while moving from Chak Pandit to Sakrana, was attacked and so thoroughly disorganised that it remained ineffective for almost 12 hours. Destruction by the PAF, on the other hand, of



Above and left: As political leader of Pakistan during the 1965 war with India, President Ayub Khan, seen here talking to some of the PAF pilots at Sargodha, and with Air Marshal Nur Khan and the Sargodha station commander, Gr Capt Mohammed Zaffar Masud, left the military commanders very much on their own, so far as the aims of their operations were concerned. He was also extremely disconcerted to find that the Pakistan army was running out of tank and artillery ammunition towards the end of the 22-day war.

Right: The PAF C-in-C, Air Marshal Nur Khan, discusses the outcome of his successful air superiority campaign after the end of operations in 1965 with some of his pilots and the station commander at Sargodha, and with some of the Pak Army personnel who he was able to save from much of the attention of the IAF.







Above and left: Soon after the end of the 1965 war, Air Marshal Nur Khan flew an F-86F Sabre to East Pakistan to congratulate the pilots and ground crews of No 14 Squadron at Dacca for their successful attacks against Indian air bases in the Calcutta area. The C-in-C is pictured here immediately after his arrival, still wearing his flying overalls and g-suit.

Above right: Flt Lt Yusuf Ali Khan receives the Sitara-e-Jurat — roughly equivalent to the British Distinguished Flying Cross — from the President of Pakistan in 1965, Field Marshal Ayub Khan.

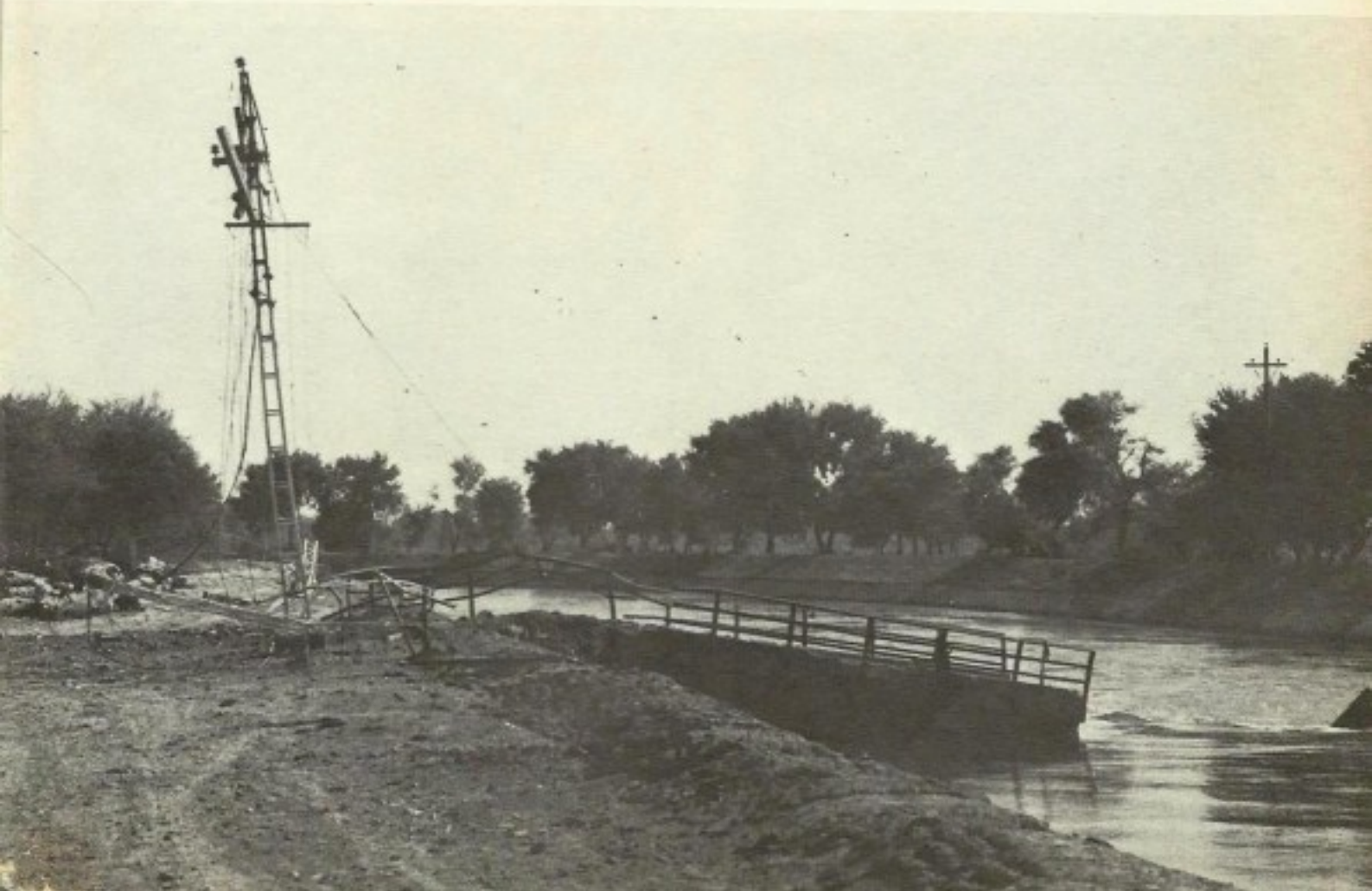
Right: The aftermath of war. A wrecked bridge over the hotly-contested BRB Canal.

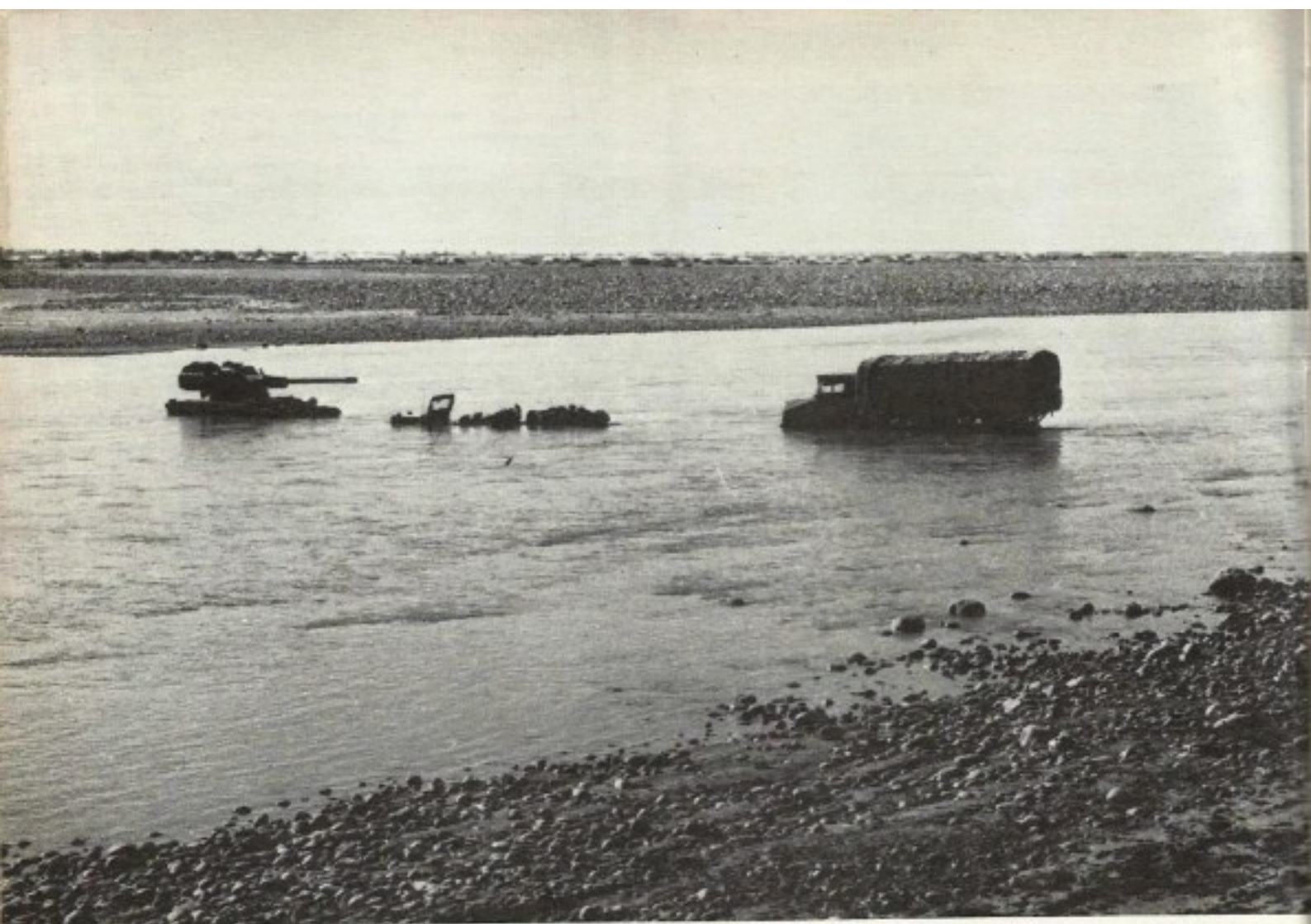


the four Vampires attacking an armoured regiment (13 Lancers) of PakArmy when about to move into the battle area, allowed these ground forces to regroup and move on with a useful fillip to their morale. Thereafter, the IAF did not interfere with the ground operations in Chhamb, which could otherwise have been brought to a standstill on their very first day.

Among other key dates in the campaign, the PAF achieved a notable success on 6 September against a force of Indian infantry and tanks poised to capture a vital bridge across the BRB canal at Batapur, only 10 miles or so from the key city of Lahore. The Indians were in a position to achieve strategic surprise with their planned attack against Lahore, but PAF intervention allowed PakArmy's 10 Infantry Division time to deploy in defence of the BRB bridge, and rush tanks and infantry to secure it.

In Pakistan 7 September is now celebrated in Pakistan as Air Force Day, to mark achievement by the PAF of air superiority over Sargodha, but even while this crucial engagement was being decided, Pakistan air power continued to influence the land battle. When the Special Service Group Commandos were dropped by parachute to attack three forward Indian airfields on the night of 6/7 September, the PakArmy personnel at Pathankot had the misfortune to encounter 14 Indian Division on the Amritsar-Pathankot road en route from Saugor to Samba, where it was to join I Corps in assembling to launch an attack on the morning of 8 September. According to captured Indian operation orders, this division had the important task of attacking southwards from Samba to protect the flank of the Indian I Armoured Division. Since PakArmy had no regular





troops deployed east of the Degh Nadi because of personnel shortages, this division would have posed a serious threat to Pasrur and to the rear of the brigade deployed at Jassar.

It was delayed, however, to help hunt down the Pakistani paratroops, and when it finally resumed its travels on the Samba-Kathua road, it was located and attacked by the PAF. The division then received so severe a mauling that only one of its brigades came into action, and then just before the cease-fire.

Again on 7 September, a crisis developed in the Khem Karan area, where the Pakistani 1 Armoured Division was ordered to advance into Indian territory. This meant crossing the BRB canal and the Rohi Nala river, necessitating a bridging operation with considerable delay. The leading brigade of the division which should have crossed over during the night was on the road leading to the bridge at first light, and was unable to cross until late in the day. Inevitably, division traffic built up until tanks and vehicles accumulated, almost nose to tail, on the road leading to the bridge, but this heaven-sent target, although detected by the IAF, was covered so effectively by the PAF that no losses were encountered during the water crossing.

Left: PakArmy vehicles and a tank abandoned in the Tawi River after the end of hostilities.

Below left: Part of an Indian field regiment of artillery captured at Chhamb.

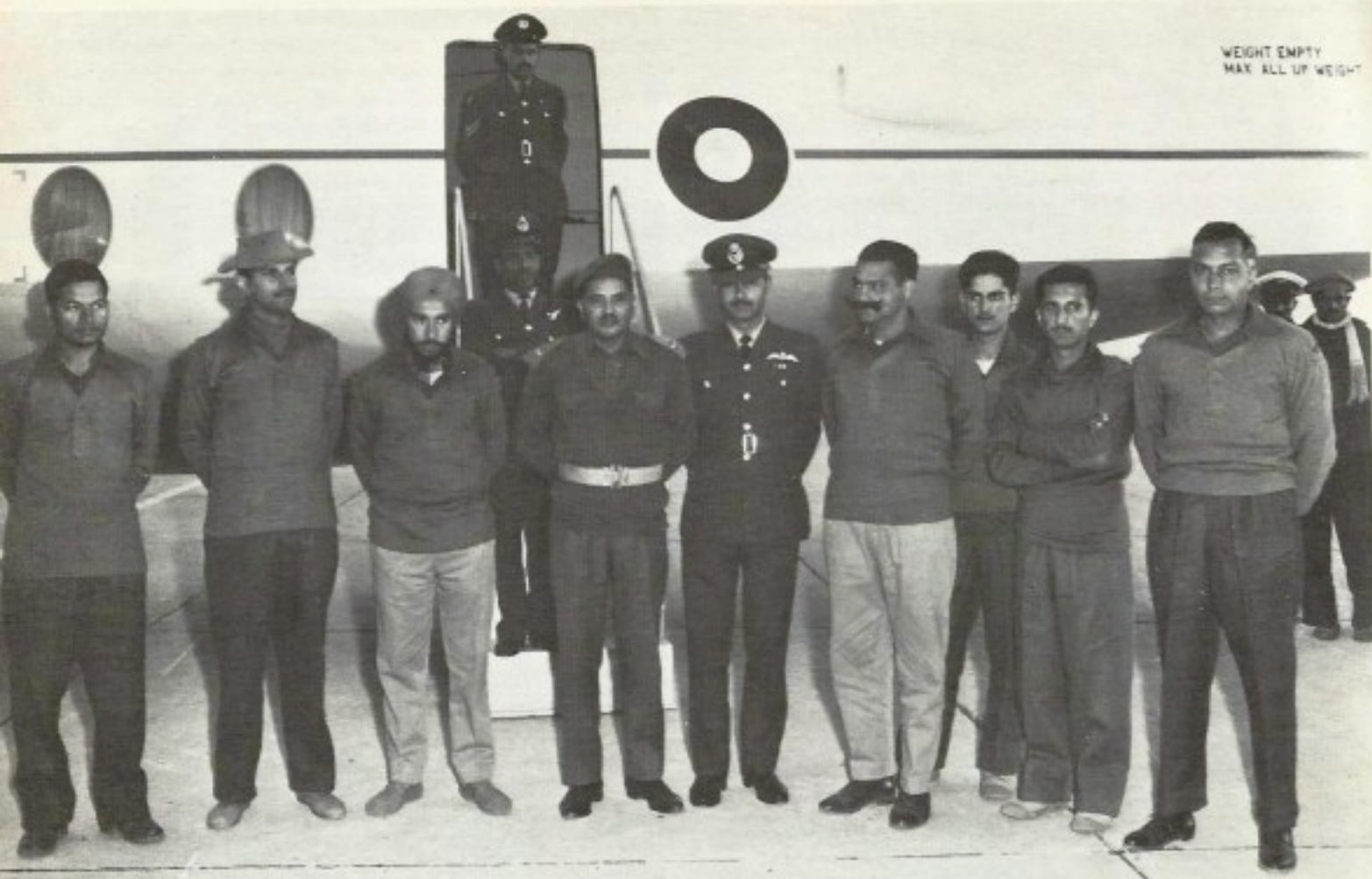
Below: PakArmy booty in the Chhamb area also included this captured Indian AMX-13 tank.

On 8 September, when the Indian 1 Corps attacked in the Sialkot area at a point from where the defending PakArmy troops had been withdrawn on the previous evening, and thus gained complete tactical surprise, the joint engagement of the Indian Armoured Division by one Pakistani tank regiment (25 Cavalry) and the PAF had the effect of forcing the enemy into a withdrawal to defensive positions. In this action, 14 Indian tanks were claimed destroyed by the PAF, which also gave the PakArmy units time to reorganise their defence.

In the tank battle that raged in the Chawinda-Badiana area from 8 September to 23 September the closest cooperation was developed between the PAF and the 6 Armoured Division. In its operational planning before the outbreak of hostilities the 6 Armoured Division had considered air support to be unlikely, but in its Chawinda campaign, the division was able to pre-plan support from the PAF following the achievement of Pakistan air superiority. Every night, requests for the next day's requirement were forwarded to the JOC, and included tactical recce, interdiction, and fighter ground attack support for projected armour actions.

Some difficulty was encountered by the division in getting the best results from the support available because of the shortage of 'air contact teams' and restricted visibility from the ground. These difficulties were overcome with the employment of airborne 'air contact teams' in Cessna L-19 liaison aircraft of Pakistan Army Aviation. PAF cooperation and support also did more than keep the IAF away from Pakistani armour, and give it complete freedom of movement and manoeuvre, while at the same time denying this to the Indians. In the 15 days of battle, the PAF claimed 113 Indian tanks knocked out in this area, and although this total later



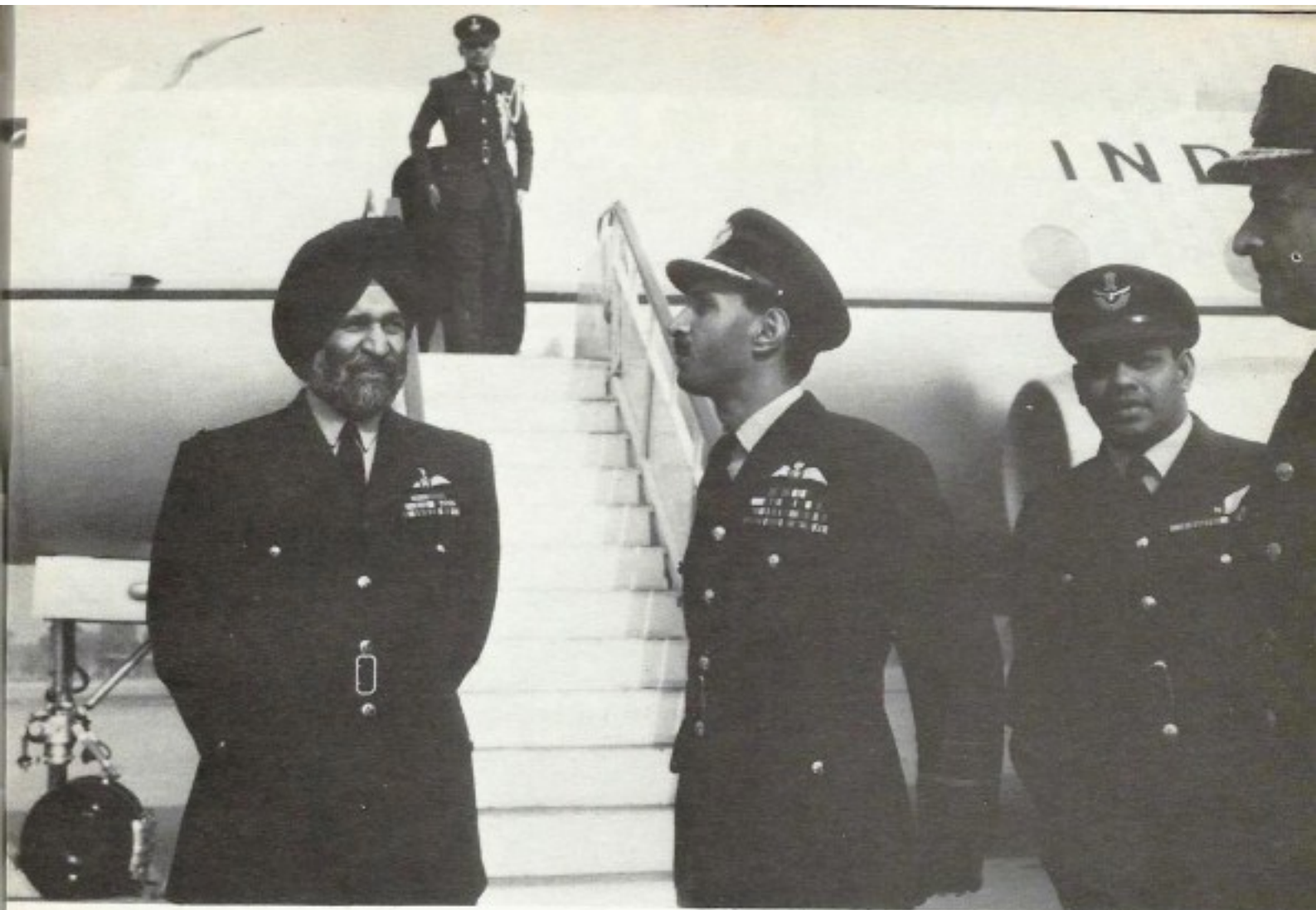


Above: These Indian army prisoners-of-war were doubly fortunate in being repatriated after the 1965 war in the PAF's VIP Fokker F27 Friendship to India.



Left: Both the Commanders-in-Chief of the PAF and of Pak Army (Gen Mohammed Musa) are seen in this photograph taken during an inspection visit after the 1965 war by President Ayub Khan to Sargodha. On the President's left is the station commander, Grp Capt Masud.

Right: Having faced each other as Commanders-in-Chief of opposing air forces in the 1965 war, Air Marshal Nur Khan and Air Chief Marshal Arjan Singh met soon after the end of hostilities when the IAF chief made an official visit to Pakistan. He was greeted on his arrival in a Tupolev Tu-124 of the IAF's VIP squadron by Nur Khan, who renewed his acquaintance with Arjan Singh from WWII days and even earlier. Their subsequent discussions of the 1965 operations would have made fascinating listening.



proved optimistic, by any measure the influence of Pakistani air superiority on this battle was almost as decisive as the ground operations.

Similarly, local air supremacy not only gave PakArmy tactical advantage on the divisional fronts but also enabled the Army C-in-C to move his forces with complete freedom, both by road and rail, day or night, from the first day of the war to the last, along the length of West Pakistan. A number of formations and units moved from one area of operations to another as the situation changed. Among the most important were the moves of the 1 Armoured Division which attacked at Khem Karan on 7 September. One brigade moved to Lahore on 11 September to avert a crisis in that area, and the division finally concentrated in the Chawinda area. Without the capability of moving large formations at will if India had been able to exercise its air power, the Pakistan Army command, with the forces that were available, would have had grave difficulties in dealing with the crises that developed during the course of the war.

Success of the PAF was based on the sound foundation established by Air Marshal Asghar Khan, its first Pakistani C-in-C. He ensured a very high degree of technical efficiency without which a commander-in-chief, even of Nur Khan's capability, would have been at a loss. And having been put to the test within five weeks of taking over command of the PAF, Nur Khan and his staff evidently made maximum use of the time available to ensure adequacy of Pakistan's air combat plans.

The tactics of the PAF's new C-in-C were governed mainly by size and attrition considerations, and it was vital for him to anticipate correctly when the main land battle would be fought. Even major successes by the PAF in the early stages of the campaign accompanied by high attrition could have been fatal to the outcome of the 22-day air war. This resulted in him having to turn down on several occasions, Army requests for strikes and other support missions if he considered them uneconomical, or likely to result in high losses. Having only 100 or so combat aircraft in all also meant that he had to turn down interdiction roles pending a positive evolution of the land battle, to avoid frittering away his slender resources.

Although the objective set by Nur Khan of gaining air superiority over the main land battle area was not compatible with the size and strength of the PAF, it made the maximum contribution to the national war effort and effected concentration in the area most critical to PakArmy. To offset Pakistan's numerical inferiority, the C-in-C was forced to mobilise the entire resources of the PAF in both men and machines, and to confer combat roles on even the most outmoded and second-line aircraft.

In the PAF, Air Marshal Nur Khan found a responsive instrument which he was able to tune to his own aggressive posture, and based his strategic plan on crippling the IAF on the ground by air strikes and commando attacks, while preparing, if necessary, to fight a secondary battle in defence of his air bases. His decision to go ahead with the initial strikes against the main IAF air bases, even when the number of aircraft available was considerably below the planned figure, was typically aggressive and perhaps arguable, but resulted in four major advantages so far as the PAF was concerned. In

the first place, it effected some useful attrition; secondly, retaliatory attacks brought the IAF into an area where the PAF could bring its technical superiority in the form of the Lockheed F-104 and the Sidewinder air-to-air missile into effect against the enemy; thirdly, it made optimum use of the small force of Starfighters and Sidewinder-armed F-86s to engage the IAF in the air defence role; and finally, he achieved maximum concentration of his meagre forces while the IAF had to divide its efforts between air defence and strikes against the PAF on the ground.

The heavy losses suffered by the IAF in its attacks against the main base at Sargodha convinced the Indian staff that it could not match the combination of the F-104 and the F-86/Sidewinder. This resulted in the IAF refusing to engage in further aerial combat, leaving the air over the land battle dominated by the PAF. This force was then able to maintain combat air patrols beyond the army's front line, and the attainment of air superiority also enabled the PAF to provide the army with an unexpected degree of close support. To a great extent, this support made up for the numerical inferiority of PakArmy which was thus able to fight its larger adversary to a standstill, resulting in the eventual cease-fire.

More than battles on land or sea, air combat depends on the skill, determination and courage of the individual to engage the enemy. Despite the technical superiority of both the Starfighter and the Sidewinder, the final combat statistics showed that these weapons inflicted fewer losses on the IAF than the classic combat engagements of the brilliantly-flown PAF Sabres. It was mainly the F-86 pilots who engaged the Hunters, Gnats and Mystères of the IAF on 6 and 7 September with such skill, determination and courage that won the superiority which established PAF dominance in the skies of Islam.

The contribution of the handful of Mach 2 Starfighters in the PAF's single F-104 squadron towards the attainment of air superiority cannot be calculated from the number of air victories claimed. The very nature of their employment as top cover for the F-86s and in night interceptions ensured that their kills would be meagre. For the IAF, however, they represented a threat out of all proportion to their small numbers, and without their equal versatility, air superiority would not have been so quickly and cheaply achieved.

The bombers, the transports and the training aircraft which harassed the enemy and carried on the fight during the hours of darkness, often undertaking assignments far beyond their designated roles, indicated the totality of the effort the PAF generated as much as the resourcefulness and the dedication of the crews who performed these tasks.

Behind the operational staffs and the eager pilots stood the ground crews, unrewarded as always, but whose ingenuity, untiring efforts and skill maintained virtually peace-time serviceability standards under front-line combat conditions, and thereby made it possible for the PAF to fulfill its aims. And knitting together the whole, the inspirational leadership of Air Marshal Nur Khan, the personification of Pakistan's fighting spirit and within his sphere probably as great a military presence as many who have made wider marks in history.

20. The PAF Re-equips



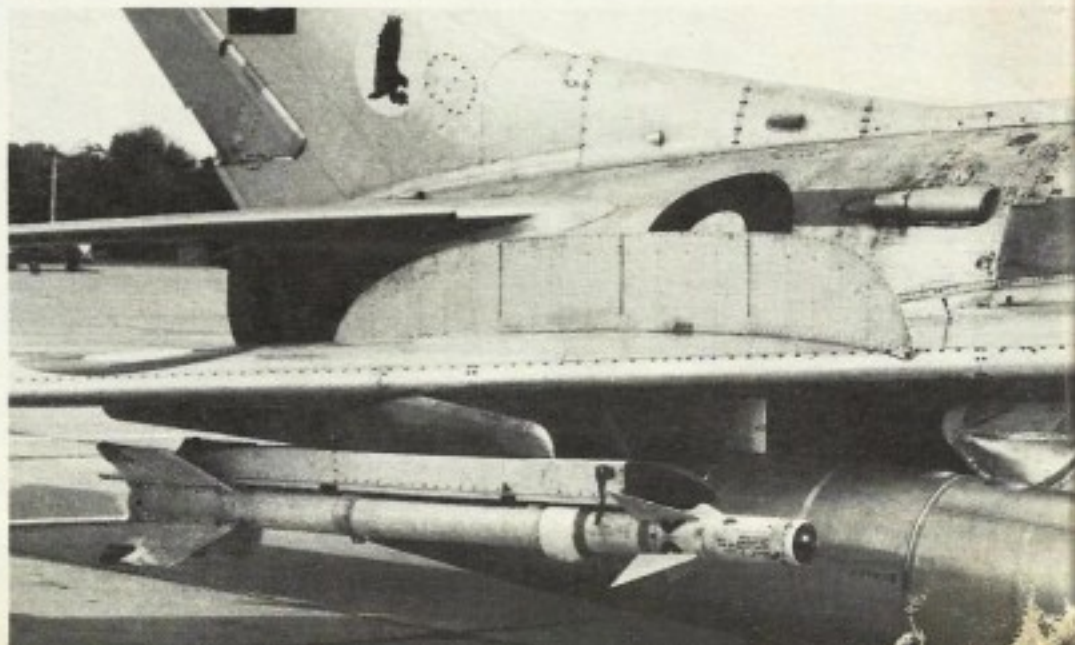
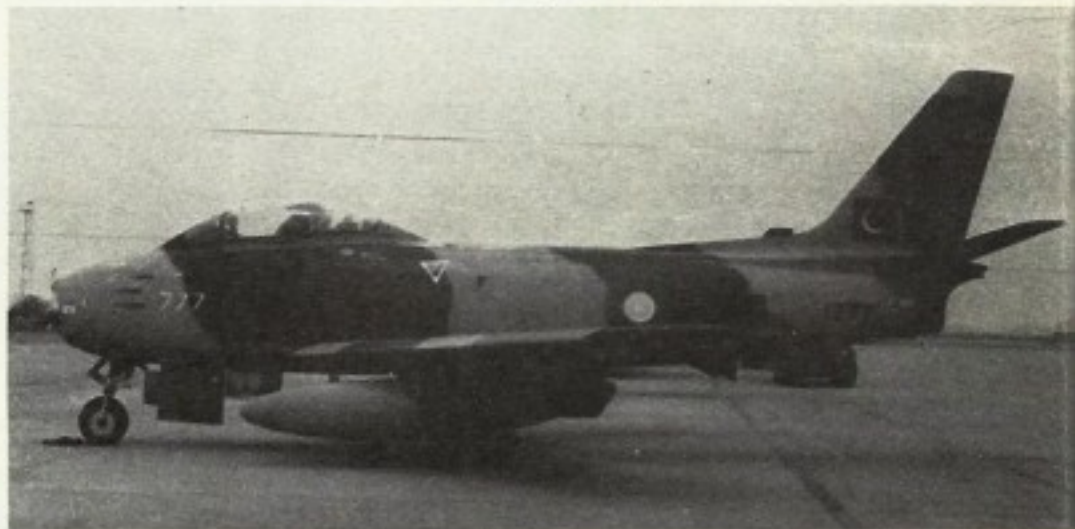


Immediately after the end of the 1965 war, Air Marshal Nur Khan took energetic steps to remedy the deficiencies in equipment and bases which had emerged during hostilities, before retiring as PAF C-in-C in August, 1969. He succeeded in obtaining 220 or so aircraft from six different countries and making them operational within a year.

Overleaf: Mirage IIIEs purchased from Dassault in France.

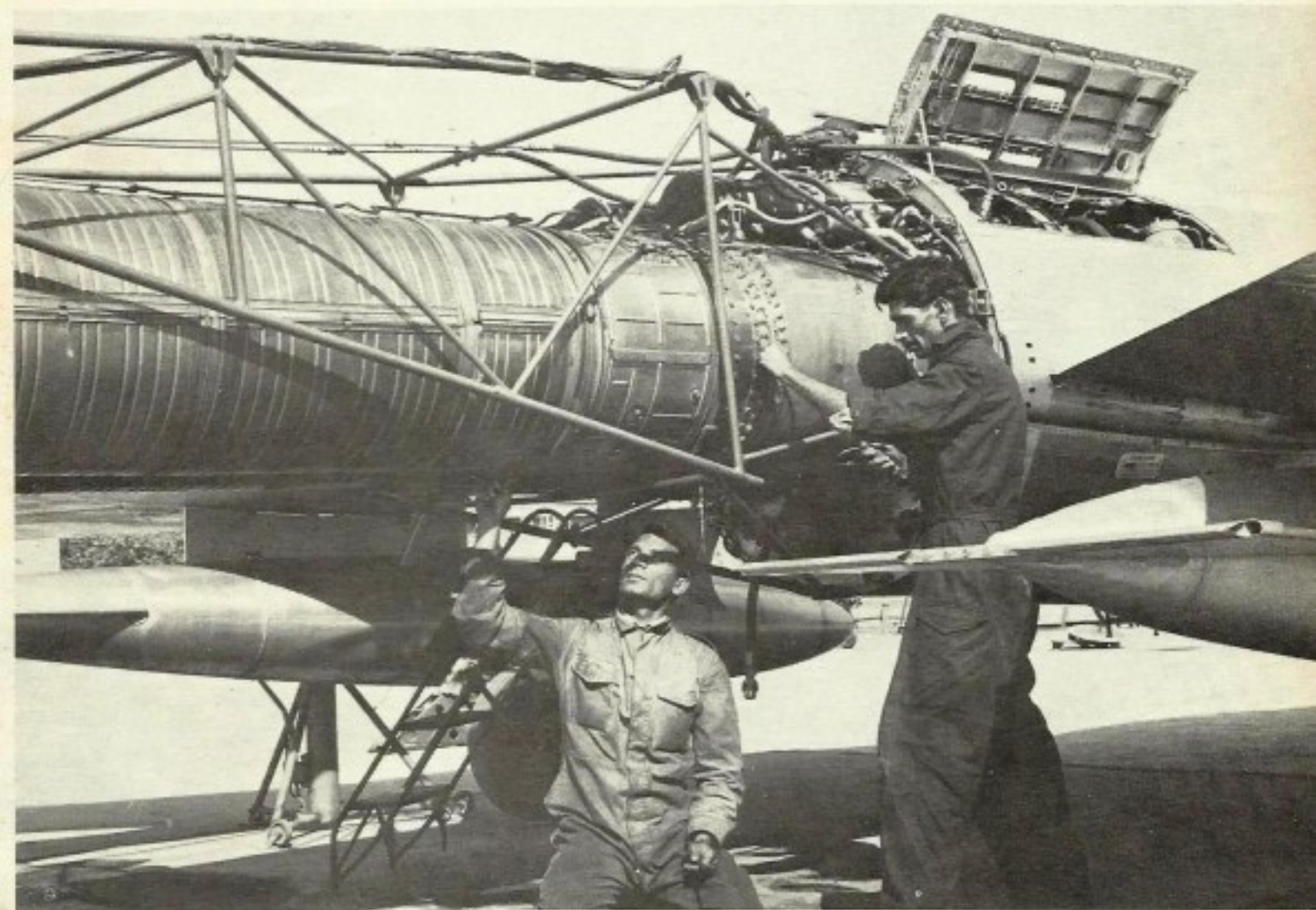
Above and centre right: Air Marshal Nur Khan was instrumental in obtaining 90 ex-Luftwaffe Orenda-engined Sabre Mk 6s known in the PAF as F-86Es, from Iran immediately after the 1965 war, as interim equipment to build up Pakistan's combat aircraft inventory. With 7,200lb of thrust from its Orenda 14 turbojet, the Sabre 6 had a marked improvement in performance over the F-86F, with its 5,970lb GE J47-27 engine.

Bottom right: Combining Eastern and Western technologies, the PAF has equipped its MiG-19s to carry two US Sidewinder AAMs on outboard wing pylons, resulting in a highly-effective multi-role fighter.





Pakistan also obtained 75 MiG-19SF fighter-bombers from China, which had been building them with Soviet assistance before the schism in Communist dogma forced the two nations apart. Powered by two 7,166lb axial-flow RD-9B Type 811 turbojets, the MiG-19 carries a powerful armament of three 30mm Nudelmann-Richter NR-30 cannon and has a maximum level speed of around Mach 1.4. Negotiations for the purchase of the MiG-19s started with China in October 1965, and the first PAF pilots completed their initial training in time to fly their new aircraft in the Republic Day Parade in Pakistan in March 1966.







Left: For conversion to the MiG-19s, the PAF uses three or four two-seat MiG-15UTI trainers, also built in China. The author is seen here in the rear seat of one of the PAF's MiG-15 trainers during a familiarisation flight from Sargodha in 1968.

Above and right: Immediately after the 1965 war, AM Nur Khan negotiated the purchase of an initial batch of Mirage IIIEs and 5s from Dassault in France, to help balance the production in India of the similarly Mach 2 MiG-21. The PAF has since increased its Mirage procurement to more than 60 aircraft, including 13 IIIRP tactical-recon fighters, and five two-seat IIIDP trainers.



Below right: As C-in-C, AM Nur Khan insisted on being checked-out on every operational fighters flown by the PAF. Here, he is being briefed on the Mirage IIIEP before the first of his familiarisation flights.





Above: Second-line re-equipment included a number of Aérospatiale Alouette III helicopters from France, to replace the earlier H-19s and HH-43s delivered from the US under the original Mutual Aid programme. A number of Alouette IIIs have been assembled at Dhamial, in northern Pakistan, by the army workshops.

Right: PAF plans after the 1965 war to purchase both the SAAB Viggen and the SAAB 105 armed trainer were vetoed by the Swedish government, but release was achieved of an initial batch of 45 SAAB-MFI 17 Supporter trainers for both PAF and army aviation use. A further batch of 25 MFI 17s were scheduled to be assembled in Pakistan at the Kamra aeronautical complex in the Punjab, in the late 1970s.



Appendix: Claims & Counter Claims

In the confusion of combat, it is impossible to establish confirmation of air victories, and from the Battle of Britain onwards it has become clear that many claims are invariably exaggerated. Despite assistance from gun-camera films, radar traces and eye-witness accounts, the only real evidence of an air victory is recovery of the wreckage and/or the pilot of the enemy aircraft. Since most present-day limited wars, however, are fought around frontier areas, this infallible guide is seldom fully available to either side's satisfaction.

In the case of the 1965 war between India and Pakistan, both sides claimed, in the heat of battle, to have destroyed about 100 of each other's aircraft, and although this has since proved to be unlikely, to say the least, the final assessment is still to some extent an unknown quantity. This is particularly true in the case of India, since Pakistan has made its war records and personnel available for impartial examination, and is

prepared to publish its losses in complete detail. With a relatively small air force, Pakistan would, in fact, have had difficulty in concealing any bigger losses than were actually admitted, and was also able to fly virtually its entire postwar air strength, then comprising 85 F-86Fs, 10 F-104As and about 20 B-57s, over a victory parade in Karachi.

Total PAF aircraft losses between 1-23 September 1965, which were also confirmed by the US Military Assistance Advisory Group, were stated to comprise 13 F-86Fs, two F-104s and four B-57s. Of these, only seven F-86Fs and one F-104 were lost as a result of air combat. Two F-86s were lost in flying accidents, together with one B-57 and one F-104. One F-86 was lost as a result of damage from debris from its own target, and one RB-57B and one F-86 were shot down by Pak Army ground fire.

On this basis, the PAF Roll of Honour for the 1965 war comprises the following:

1	6 September 1965	Sqn Ldr S. A. Rafiqui	Halwara	F-86*
2	6 September 1965	Flt Lt Yunus Hussain	Halwara	F-86*
3	7 September 1965	Flt Lt A. T. M. Aziz	Dacca	F-86*
4	7 September 1965	Flg Off Afzal Khan	Kalaikunda	F-86*
5	7 September 1965	Flg Off Sikandar Azam	Mauripur	F-86
6	7 September 1965	Sqn Ldr S. A. Siddiqui	Jamnagar	B-57
7		Sqn Ldr Aslam Qureshi		
8	11 September 1965	Sqn Ldr Muniruddin Ahmed	Amritsar	F-86
9	11 September 1965	Sqn Ldr M. Iqbal	Rahwali	RB-57B
10		Flt Lt Lodhi		
11	13 September 1965	Sqn Ldr Alauddin Ahmed	Gurdaspur	F-86
12	17 September 1965	Flt Lt M. A. Butt	Risalpur	B-57
13		Flt Lt A. S. Z. Khalid		

*Shot down in air combat with the IAF

In addition to these 13 officers killed with the loss of 10 aircraft in action, including the two-man crews of three

B-57s, additional but non-fatal losses in the 22-day war involving a further nine aircraft, comprised the following:

1	4 September 1965	Flt Off N. M. Butt	Akhnoor	Ejected, escaped	F-86*
2	7 September 1965	—	Sargodha	Strafed on ground	F-86
3	7 September 1965	Flt Lt Amjad Husain	Sargodha	Shot down, ejected	F-104*
4	8 September 1965	Flt Lt Sadruddin	Lahore sector	Ejected, escaped	
5	14 September 1965	Flt Lt Sheikh	Adampur	Ejected, PoW	B-57
		Flt Lt B. A. Chaudhri		Ejected PoW	
6	16 September 1965	Flt Off M. I. Shaukat	Taran Taran	Ejected, PoW	F-86*
7	17 September 1965	Flt Off G. O. Abbasi	Peshawar	Crashed, injured	F-104
8	19 September 1965	Flt Lt S. M. Ahmed	Sargodha	Crashed, injured	F-86*
9	20 September 1965	Flt Lt A. H. Malik	Lahore sector	Ejected, escaped	F-86*

*Shot down in air combat with the IAF

The extent of the PAF's losses appears to have been established beyond reasonable doubt, but the situation regarding the Indian air force is somewhat more difficult to establish. The postwar official Pakistani assessment of 110 IAF aircraft destroyed and 19 damaged, including 35 shot down in air combat, 43 written off during airfield attacks and 32 shot down by ground fire is almost certainly optimistic, although it does not include possible Indian losses due to flying accidents. If the PAF experience was any indication, such accidents could be expected to amount to over 15% of overall operational losses.

Immediately after the 1965 war, India publicly admitted the loss of only 35 aircraft, while claiming 73 PAF machines shot down in air combat or by ground fire. The Pakistani aircraft claimed destroyed were said to comprise 40 F-86s, three F-104s, six B-57s and 24 miscellaneous types, including C-130s. Of the 35 admitted IAF losses, 15 were said to have resulted in air combat and the remaining 20 from PAF strikes against Indian airfields, including 10 during the first surprise attack by Pakistan against Pathankot.

Curiously, however, the IAF listed the names of only 16 officers killed in action, including 15 in the Punjab

battle area, immediately after the 1965 war, and these are said to be listed on the Air Force Roll of Honour in the IAF Museum in New Delhi. On the basis of India's admitted losses, this assumes a recovery rate of virtually nil — ie, 14 aircrew were killed in the 15 aircraft shot down (one having died when his machine was destroyed on the ground). In the PAF, on the other hand, 13 aircrew were killed for the loss of 19 aircraft, which indicates a recovery rate of some 30%.

If doubts are cast on the IAF admissions, which some time afterwards were quoted as high as 75 aircraft from one source in New Delhi, it is not to belittle the efforts of the Indian airmen. In most cases, they fought as bravely and skilfully in their country's cause as did the Pakistanis themselves, but in a historical study of this kind — necessarily seen from the point of view of only one protagonist — the main objective must always remain to establish the truth, so far as possible.

Below: A Fairchild C-119 transport at Srinagar, shot up on the ground by aircraft from No 19 Squadron.



An official Pakistani assessment of IAF losses compiled after the war from reports from Indian sources put the total number of enemy aircraft destroyed at 50, including 22 in air combat, nine shot down by ground fire and 19 on the ground from PAF strikes. Air-to-air losses were said on this basis to comprise 12 Hunters, three Mystères, two Gnats, one Canberra and four Vampires. A further four Hunters, four Mystères and one Auster light aircraft were reportedly shot down by PakArmy ground fire. From PAF airfield strikes, Indian sources reported, in addition, the loss of three Hunters, five Mystères, two Gnats, two MiG-21s, two Canberras, one

Vampire, two Fairchild C-119s and one Douglas C-47.

Finally, the Pakistan Government also compiled its own list of IAF aircrew casualties from published and other Indian sources, which indicated a minimum of 34 aircraft lost, comprising four Vampires, 14 Hunters, nine Mystères, three Gnats, one Canberra and three unidentified aircraft. These losses, according to Pakistan, resulted in the deaths of 22 IAF aircrew, while five ejected safely in India and seven became prisoners-of-war. The names and circumstances of these losses were fully detailed by Pakistan, soon after the 1965 war, as follows:

1	1 September 1965	5284 Flt Lt A. K. Bhagwagar	Killed. Air combat in Chhamb, Azad Kashmir	Vampire
2	1 September 1965	6019 Flt Lt M. V. Joshi	Killed. Air combat in Chhamb, Azad Kashmir	Vampire
3	1 September 1965	6348 Flt Lt S. Bhardwaj	Killed. Air combat in Chhamb, Azad Kashmir	Vampire
4	10 September 1965	4672 Sqn Ldr M. J. Marston	Killed. PAF ground strike at Bagdogra	Vampire
5	6 September 1965	Flg Off P. N. Pingali	Shot down over Halwara. Ejected safely in India	Hunter
6	6 September 1965	Flg Off Gandhi	Shot down over Halwara. Ejected safely in India	Hunter
7	7 September 1965	4800 Sqn Ldr S. B. Bhagwat	Killed. Air combat at Sargodha	Hunter
8	7 September 1965	4604 Sqn Ldr O. N. Kackar	PoW. Ejected near Sargodha	Hunter
9	7 September 1965	7223 Flg Off J. S. Brar	Killed. Air combat, Pakistan	Hunter
10	?	4741 Sqn Ldr A. K. Rawley	Killed. Air combat. Hit in Pakistan, crashed in India	Hunter
11	?	5782 Flt Lt G. S. Ahnja	Killed. Injured in Pakistan, died in India	Hunter
12	?	5333 Flt Lt Tapen Chowdhry	Killed in air action. Details unknown	Hunter
13	?	Flt Lt Sharma	Hit in air combat in Taran Taran, Pakistan, ejected in India	Hunter
14	8 September 1965	6749 Flg Off M. V. Singh	PoW. PakArmy ground fire	Hunter
15	16 September 1965	6751 Flt Lt R. D. Bunsha	Killed. Air combat, Pakistan	Hunter
16	20 September 1965	4409 Sqn Ldr D. P. Chatterjee	Killed. Air combat, Taran Taran, Pakistan	Hunter
17	22 September 1965	5376 Flt Lt Cariappa	PoW. PakArmy ground fire, Khem Karan	Hunter
18	7 September 1965	4476 Sqn Ldr Jasbeer Singh	Killed. Air combat, Pakistan	Mystère
19	7 September 1965	4810 Sqn Ldr A. B. Daveyya	Killed. Air combat, Pakistan	Mystère
20	8 September 1965	5105 Flt Lt B. Guha	Killed. Air combat, Pakistan	Mystère
21	?	7199 Flg Off D. P. Chinoy	Hit by ground fire. Ejected in Pakistan, escaped to India	Mystère
22	9 September 1965	Flt Lt I. F. Hussain	Hit by ground fire in Pakistan, ejected in India	Mystère
23	11 September 1965	4688 Sqn Ldr R. K. Uppal	Killed. PakArmy ground fire.	Mystère
24	13 September 1965	5201 Flt Lt Sadarngani	PoW. PakArmy ground fire	Mystère
25	13 September 1965	7207 Flg Off T. S. Sathi	Killed. PakArmy ground fire	Mystère
26	22 September 1965	7442 Flg Off P. R. Ramchandani	Killed. PakArmy ground fire. Died in India	Mystère
27	3 September 1965	3947 Sqn Ldr B. S. Sikand	PoW. Forced to land in Pakistan	Gnat
28	?	4406 Sqn Ldr N. K. Malik	Killed. Hit in Pakistan, died in India	Gnat
29	19 September 1965	6508 Flt Lt V. M. Mayadeo	PoW. Air combat, Pakistan	Gnat
30	21 September 1965	5121 Flt Lt M. M. Lowe	PoW. Air combat, Pakistan	Canberra
31	?	7168 Flg Off K. K. Kapoor (N)	Killed in aircraft wreckage	
32	?	Flg Off Jagat Singh	Killed in action, Pakistan (newspaper report, 1/10/65)	Unidentified
33	?	Flg Off M. D. Surti	Missing. Believed killed in action, Pakistan	Unidentified
34	?	Flg Off Man Mohan Lal	Missing. Believed killed in action, Pakistan	Unidentified

This list excludes, with one exception, any Indian aircraft destroyed on the ground by PAF airfield strikes, quoted by the IAF as 20. This results in a minimum IAF loss of 54 aircraft, excluding any additional casualties resulting from operational accidents in India during the 22-day war. A final figure of around 75 aircraft lost by the IAF in September, 1965, would therefore appear quite feasible.

The official Indian commentary on the fighter operations, issued by the Ministry of Defence in New Delhi soon after the end of the 1965 war, claimed, as might be expected, that air superiority had been achieved by the IAF, in the following terms:

'While the Pakistanis had been effectively deterred from carrying out daylight attacks on Indian airfields and installations, and targets inland, the IAF fighter-bombers ranged far and wide, attacking military targets and air bases. Sargodha airfield was attacked several times in broad daylight by Indian Mystère IVAs and Hunters. Considerable damage to the installations was done and, besides other aircraft, at least two F-104 Starfighters were destroyed or damaged.

'In offensive fighter sweeps, tanks, heavy guns, armoured vehicles, anti-aircraft guns, heavy motorised transport and formation HQ fell victim to Indian rockets, bombs and cannon. During the 23 days' fighting the IAF destroyed no fewer than 120 Pakistani tanks alone. In one particularly effective strike, on 8 September four IAF Hunters destroyed a goods train — which action eventually resulted in the blunting of the Pakistani armour attack in the Khem Karan sector — and, in addition, knocked out four tanks and over 60 vehicles.

'While the IAF fighter-bombers continued to give ground support to the army, Indian fighters were busy clearing the skies of the Pakistani Sabres. Every time the F-86s were engaged by Gnats or Hunters, the Sabres were never able to get away without loss. The reputedly deadly Sidewinder air-to-air missiles, on which the PAF depended so heavily for air combat [in fact, apart from the F-104s, only 25% or so of the PAF's Sabre force, or 22 aircraft, were modified to operate with Sidewinders — author], proved ineffective because of the low altitudes at which most of the air battles were fought. More often than not, the enemy fighters had to jettison these missiles when engaged by the Gnats.

'In fact the greatest single deterring factor in the air battles proved to be this British-designed lightweight high-performance fighter, which has been under licence-manufactured in India since 1956. It was soon nicknamed the "Sabre Slayer", and not without reason. Its performance in the air battles was so impressive that even the supersonic F-104s refused to engage it and almost invariably decided to break off combat by cutting in their afterburners when chased by a Gnat.'

This somewhat propagandist viewpoint of the Gnat is slightly curious in view of the limited contacts made by the PAF with this machine in air combat, and is certainly not shared by most of the Pakistani fighter pilots interviewed after the war. Nor is it borne out by the precipitous surrender of the IAF Gnat on 3 September on encountering a PAF F-104, without a shot being fired. Gnats did score hits on PAF Sabres on one or two

occasions, but Pakistani records indicate that not one F-86 was directly shot down in air combat. One PAF Sabre crash-landed after an engagement with this type of aircraft, on 19 September as the result of battle damage when attempting to land back at Sargodha, and the pilot of another Sabre ejected safely over Pakistan territory after 30mm cannon strikes on 20 September. Only two Gnats were claimed shot down by the PAF in air combat during the 1965 war as against a dozen or so Hunters, which again indicates the limited contacts made with these IAF fighters. It would be true to say that most Pakistani fighter pilots had very much more respect for the Hunter than the Gnat, as a potential adversary.

The Night Offensive

According to the Indian Ministry of Defence, the airfields of Adampur, Halwara, and Ambala, in addition to Pathankot, were the principal targets of attack for the PAF, but despite daily attacks on these IAF bases, there was no evidence of any serious damage to them. Of the 43 bombs dropped by PAF B-57s over Adampur, the Indian Government claimed that 22 hit surrounding villages, with loss of life among the civilian personnel, while 21 bombs fell within the airfield area. Six bombs were described as 'direct hits', causing damage to taxiways and an empty hangar. The IAF station commander, Grp Capt W. V. Lloyd, said that the PAF bombing did not prevent the use of the air base at any time, and operational flights continued on schedule apart from one delay of 10 minutes. One B-57 was claimed destroyed over Adampur.

Halwara, continued the Indian account, on which the Pakistanis concentrated a good deal of attention, was attacked almost daily from 6 September. Although 83 1,000lb bombs fell in the airfield area, as well as in the neighbourhood, 'there were no scars of battle' visible at Halwara. One unexploded bomb was still lying on the airfield at the time of a press visit shortly after the 1965 war, 'because the Accounts Department would not sanction the employment of a demolition squad.' Station commander Grp Capt G. K. John said that two squadrons of Hunters and one of Gnats operating from Halwara flew 800 sorties during the 23 days' fighting, including 500 combat missions. The first PAF attack came on the evening of 6 September at 17.30, when eight Sabres came in two waves. Four of the Sabres were claimed destroyed, three by Hunters and one by AA fire. This was the only daylight attack the Pakistanis ventured at the beginning of the fighting. Halwara was said to have accounted for eight PAF Sabres and six of its officers received Vir Chakra awards.

Although Ambala was the largest of the IAF air bases in this region, it was reportedly attacked by the PAF only on two occasions, on 17 and 19 September. Of 16 1,000lb bombs said to have been dropped there by the PAF, only three reportedly hit the airfield, and two of these did not explode. The third damaged an old control tower which station commander Grp Capt D. E. Bouche claimed was due for demolition in any case. PAF bombs were said by India to have hit a military hospital and the century-old St Paul's Cathedral, which were less than a mile from the extreme edge of Ambala airfield. After a night raid against Ambala, according to the Defence Ministry in

New Delhi, the PAF claimed 27 IAF aircraft destroyed on the ground, which India strongly denied as 'blatant propaganda'.

Pakistani claims to have destroyed nine IAF MiG-21s during the war were also dismissed by the Indian Defence Ministry. The IAF, said an official spokesman, started operations in 1965 with only nine MiG-21s, and was prepared to show eight of these at the end of the campaign, thereby admitting the loss of only one.

India claimed that the IAF visited all the Pakistani air bases during the first few days of the war and 'soon uncovered the pattern of operations being followed by the PAF.' Thereafter, Indian Canberras conducted regular raids over the principal Pakistani air bases, although it was claimed that Mauripur, the PAF's principal base at Karachi, used extensively for dispersal, was not attacked. The Indian report continued:

'Sargodha, Akwal, Peshawar, Kohat, Chak Jhumra, Risalwala, Chaklala and other airfields received a good deal of attention. Karachi, Rawalpindi, Dacca, and Chittagong were never raided as reported by Pakistan Radio. Nor were Indian paratroops dropped anywhere in Pakistan.

'Although there was a fair amount of activity in the air the intensity of aerial action was modest by World War II or Vietnam standards in view of the limited number of aircraft on both sides. Except for countering some nuisance raids on Kalaikunda, Barrackpore and Bagdogra in Bengal by a PAF squadron (No 14) based in East Pakistan, in which the Central Air Command was involved, it was essentially only the squadrons attached to the IAF's Western Air Command that were committed to action. The scale of bombing was modest on both sides. Nevertheless, the air action was extremely important, for even the favourable air situation which the IAF established gave the Indian forces a distinct edge over the enemy... (When) the Pakistanis carried out their raid in the Eastern sector, against Kalaikunda, with a section of four F-86s, the story of Halwara was repeated all over again. All four F-86s were shot down, two by Hunters and two by AA fire.

'This costly lesson was not lost upon Pakistan, because after this, they never ventured to attack our air bases in daylight. But this attack on IAF bases opened the way for our pilots to attack Pakistani airfields in retaliation. The first to be attacked by the Indian bombers were Sargodha and Chaklala on the night of 6-7 September. From then on, nearly 200 sorties were flown by our bombers against the Pakistan air bases until the cease-fire on the 23rd. Only one IAF Canberra was lost during this entire period.

'While the PAF was paying a heavy toll in the air battles, the Indian army gunners were doing wonders with their AA guns. Taking only one example of a single battery at Amritsar, the first attack by the PAF against this (radar) installation came on the evening of 5 September, and was driven away. In the next attack, which came on 8 September, one of the attacking aircraft was shot down. Then began a long tale of victory for this "charmed" AA battery, which by the end of hostilities had confirmed a bag of 10 Pakistani aircraft, including B-57 bombers.

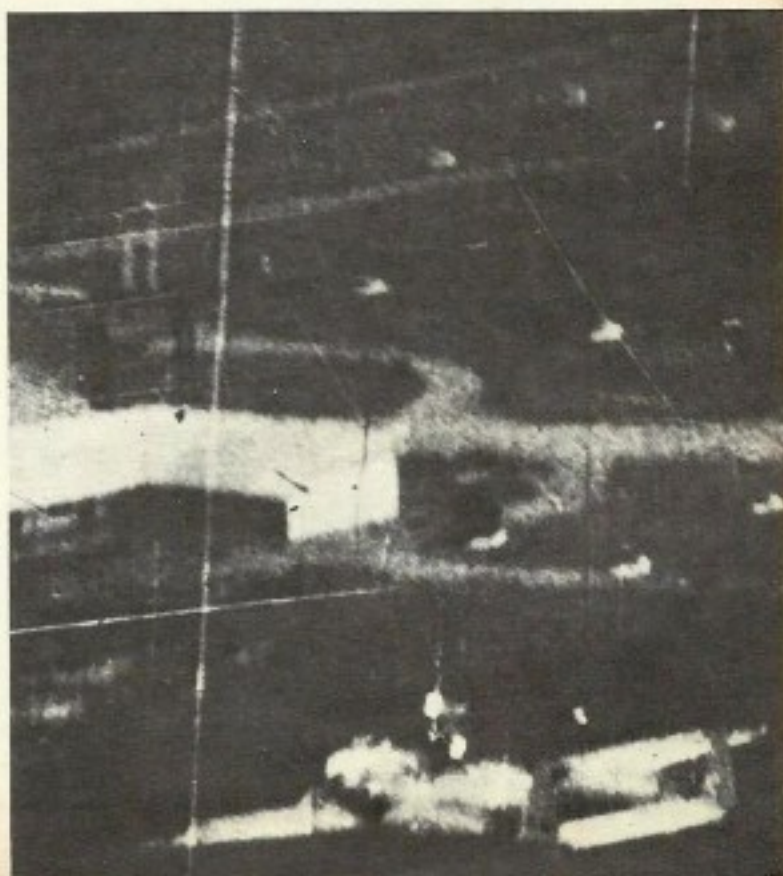
'... The last raid put in by the IAF... with a section of Canberras on the vital radar installation at Badin, in Sind, did not meet any aerial resistance at all. The Canberras met only AA fire, which did not stop them from destroying this installation with a rocket attack.'

In this respect, at least, the Indian report came somewhere near the truth. A well-planned low-level approach by the IAF force resulted in Badin receiving only a few minutes' warning, and in the destruction of its FPS-6 radar installation.

As the result of IAF experience in the 1965 war, measures subsequently taken to improve its operational efficiency, and detailed in the 1965-66 annual report of the Defence Ministry, included the formation of two additional tactical air centres to facilitate joint operations with the army; two more casualty air evacuation units; eight ground defence flights for air base and other installations' protection; two additional repair and salvage units; and an extra forward supply depot to shorten the logistics chain and accelerate the flow of equipment to operational units.

The 1965 war, according to the Defence Ministry in Delhi, cost India some Rs50 crore (approximately \$70 million at 1978 exchange rates), including the value of equipment lost or destroyed, described as 'relatively limited'. In these operations, official Indian casualty figures comprised 2,763 killed, 8,444 wounded and 1,507 missing, although more than 1,000 in the last category returned from PoW camps in Pakistan.

Below: Airfield strikes by No 19 Squadron included one against Jammu, in Kashmir, at which several aircraft, including this Fairchild C-119 transport, and buildings at the air base were shot up.



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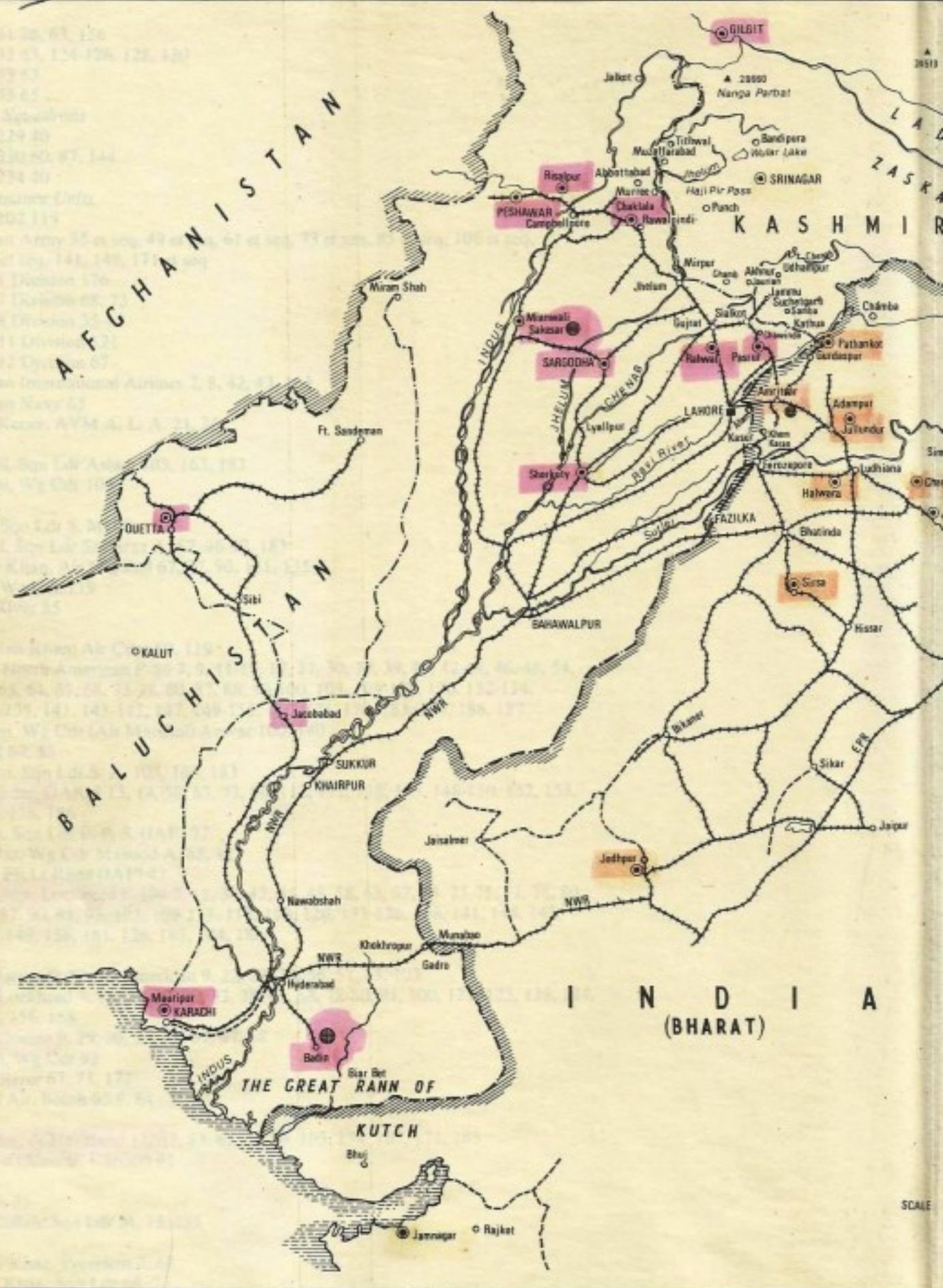
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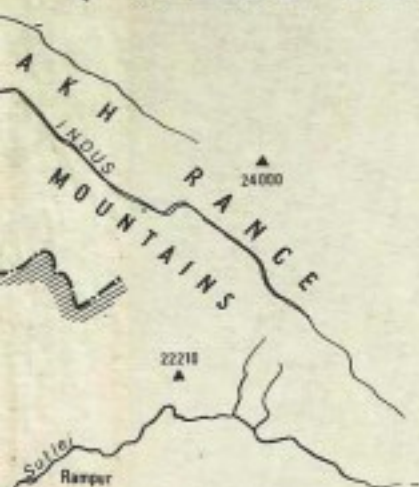
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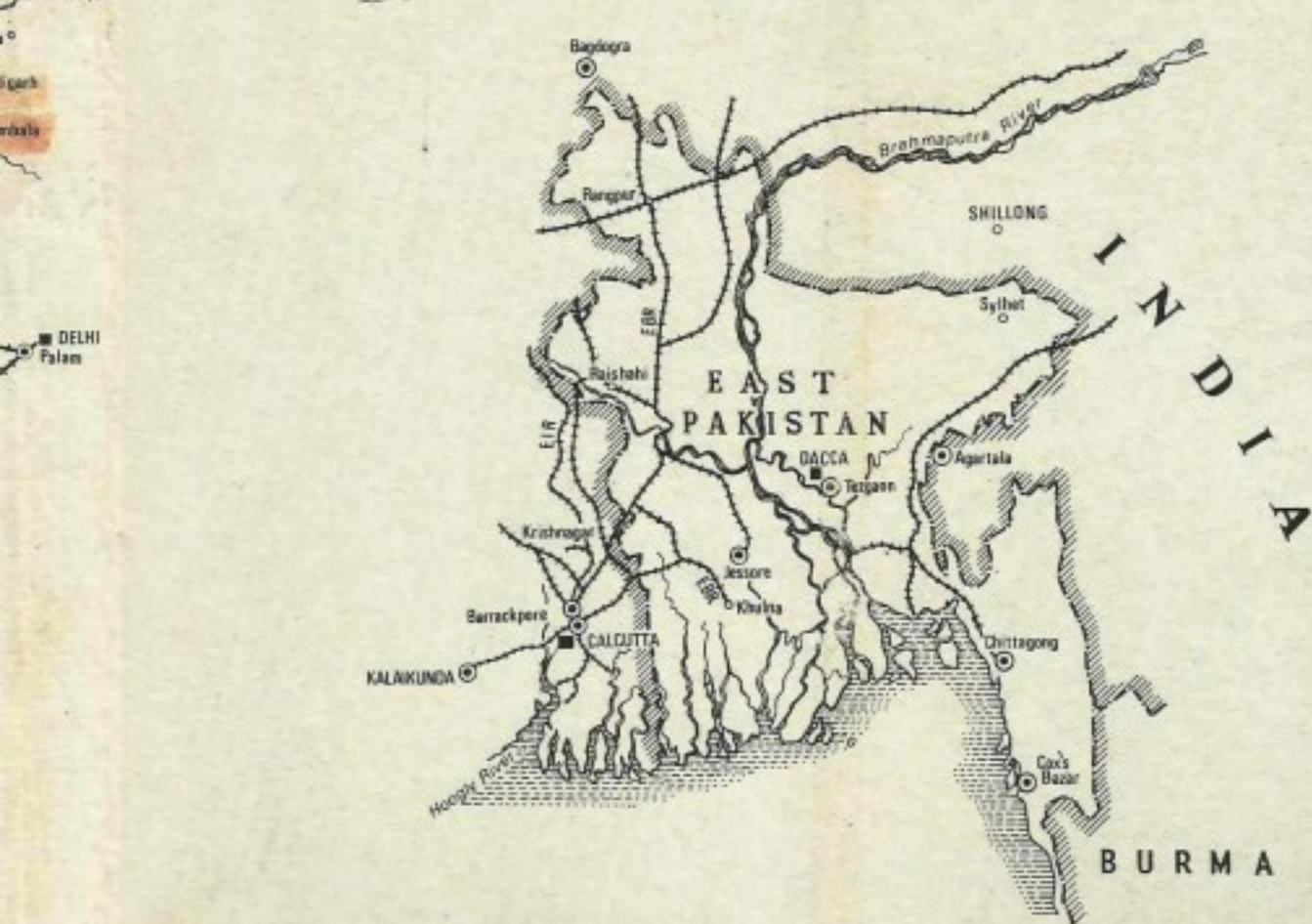
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◀ WEST PAKISTAN



- AIRFIELDS
- RADAR SITES
- INTERNATIONAL BOUNDARY
- RAILWAYS
- ROADS



EAST PAKISTAN

0 50 100 150 200 MILES

